

BUSINESS WEEK

SEPT. 21, 1946.

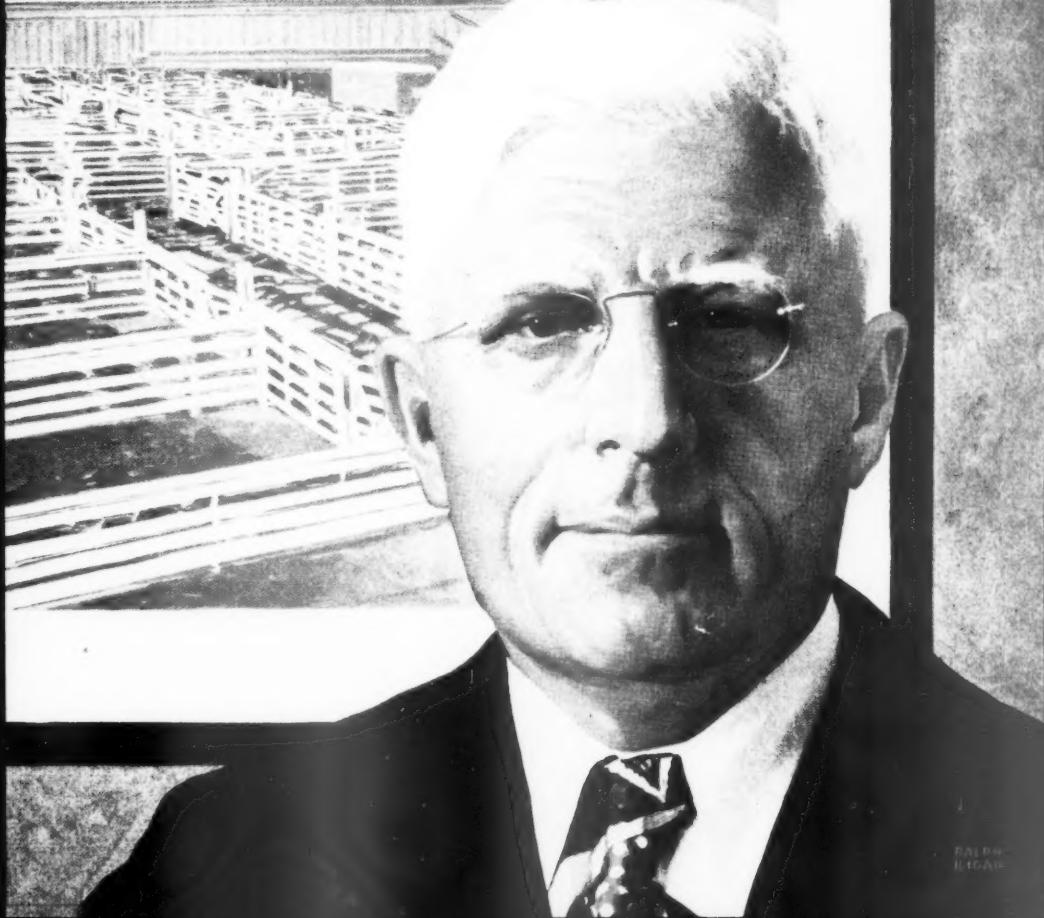


TECHNOLOGY DEPT.

PUBLIC LIBRARY

SEP 23 1946

DETROIT



RALPH LIGGAIN

John Holmes, of Swift & Co.: One man's meat is another man's black market (page 8)

BUSINESS
WEEK
INDEX

TWENTY CENTS · PUBLISHED BY THE McGRAW-HILL PU



Greater Comfort Through Revere's Better Metals

Americans are looking to the air conditioning and refrigeration industry to make us masters of our climate in every part of the country, in every phase of life. For made-to-order weather can increase patronage in stores, restaurants and theaters, can raise efficiency in shops, factories and offices, can add comfort and health in hospitals, schools and even the most modest homes.

To meet this mammoth demand air conditioning manufacturers must turn fully to mass production, as did the automobile industry. For this they need the very best materials, the most reliable sources of supply, the widest possible fabricating experience. Revere offers these combined with outstanding metallurgical knowledge. It is this combination which

enables us to solve technical problems, to keep pace with the most exacting production routines, or to manufacture such specialized products as, for instance, Revere Dryseal Copper Tube for air conditioning and refrigeration purposes.

We may be able to assist you to get better metals, speedier production, improved service, lowered cost. Revere's Technical Advisory Service and Revere's metals—copper, brass, bronze, magnesium, aluminum and steel—are ready to serve you. Listen to Exploring the Unknown on the Mutual Network every Sunday evening, 9 to 9:30 P.M., EDST.

REVERE COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801
230 Park Avenue, New York 17, New York



als

pace
or to
, for
con-

etals,
cost.
vere's
inum
oring
unday

ATED

rk

{ THE BANKS AT WORK :: No. 5 of a Series }

Buy U.S. Savings Bonds

Every American can be proud of the record of individual achievement during the war.

Thirty-seven million men and women bought \$30.3 billion of "E" bonds. The banks helped to sell these bonds.

At the same time, savings accounts increased from \$25 billion on December 31, 1941, to \$45 billion on December 31, 1945.

Your bank urges you to keep your War Bonds, hold on to your savings, and buy U. S. Savings Bonds.

U. S. Savings Bonds are the *best* investment you can make. Your money is *safe*. Your income is *assured*. Your future is *protected*.

Buy U. S. Savings Bonds from your bank or post office.



The Minuteman has turned from war to peace—reminding us to buy U. S. Savings Bonds.

BANKERS TRUST COMPANY

NEW YORK

Member Federal Deposit Insurance Corporation

BUSINESS WEEK



Check-ups are saving shut-downs in THE SELLERS' MARKET TODAY

With production so vital, more companies than ever are seeking the extra protection afforded by Hartford Steam Boiler's insurance.

Manufacturers know that goods delivered today protect their markets of tomorrow. Present power equipment needs careful watching. From the wear and tear of the war years may have come conditions that could cause a major accident—one that would put their firm far behind in the race for business.

Based on long experience, Hartford Steam Boiler's inspections of insured power equipment are designed to search out the hidden danger spots—so that these may be corrected before damage is done. Many policy-

holders consider this effective engineering service to be worth several times the premium cost.

Hartford Steam Boiler engineers, the country's largest staff devoted solely to power-equipment inspection and insurance, draw upon the Company's 80 years of experience in this one specialized line. The field men are located so they can be reached quickly in an emergency.

Unique facilities for handling this exacting work have made Hartford Steam Boiler first choice by far among power-plant operators. Your plant needs such protection. Ask your agent or broker for complete details.



The Hartford Steam Boiler Inspection and Insurance Company

HARTFORD, CONNECTICUT

Covers: Boilers • Pressure Vessels • Steam, Gas and Diesel Engines • Turbines • Electrical Equipment

Automotive	41
Aviation	50
Business Abroad	109
Finance	62
General News	15
The International Outlook	107
Labor	92
Marketing	69
The Markets	114
New Products	86
OPA Checklist	60
The Outlook	9
Production	80
The Trend	116
Washington Bulletin	5

EDITOR
Ralph Smith

EXECUTIVE EDITOR
Kenneth Kramer

MANAGING EDITOR
Edgar A. Grunwald

Assistant Managing Editor, John M. Johnston • News Editor, Gordon A. Ewing, Henry R. Lamar • Illustration, Raymond A. Dodd

DEPARTMENT EDITORS

Foreign, John F. Chapman • Business Policy, John L. Cobbs • Law, Joseph A. Gerardi • Finance, William McKee Gillingham • Outlook, Clark R. Pace • Labor, Merlyn S. Pitzele • Production, John Sasso • Industry, James M. Sutherland

EDITORIAL ASSISTANTS

Cora Carter, Browne Haydon (Assistant Foreign Editor), John Hoffman, Richard M. Machol, Mary Richards (Assistant Marketing Editor), Arthur Richer, Margaret Timmerman, E. T. Townsend (Assistant Labor Editor), Doris I. White • Statistician, Bram Cavin • Librarian, Patricia Burke

ECONOMICS STAFF

Dexter M. Keezer, Sanford S. Parker, William F. Butler, John D. Wilson

DOMESTIC NEWS SERVICE

Chicago Bureau, Arthur Van Vlissingen, Mary B. Stephenson • Cleveland Bureau, Robert E. Cochran • Detroit Bureau, Stanley H. Brams • San Francisco Bureau, Richard Lamb • Washington, McGraw-Hill Bureau (Irvin D. Foos, Robert B. Colborn, Stuart Hamilton) • Correspondents: Akron, Albuquerque, Atlanta, Baltimore, Birmingham, Boston, Buffalo, Charlotte, Cincinnati, Dallas, Denver, Helena, Houston, Indianapolis, Kansas City, Knoxville, Los Angeles, Louisville, Madison, Memphis, Miami, Minneapolis, New Orleans, Oklahoma City, Omaha, Philadelphia, Pittsburgh, Portland, Reno, Richmond, Rochester, Salt Lake City, Seattle, Spokane, St. Louis, Topeka, Wilmington, Fairbanks (Alaska), San Juan (P.R.), Honolulu (T.H.), and 22 other cities.

FOREIGN NEWS SERVICE

Director, John F. Chapman • London Bureau, Howard Whiddon • Frederick Brewster • Paris Bureau, Michael Marsh • Berlin Bureau, John Christie • Prague Bureau, Frank E. Frank • Moscow Bureau, Robert Magidoff • Shanghai Bureau, A. W. Jessup • Bombay Bureau, Joseph Van Denburg • Mexico City Bureau, Ernest Hediger • Ottawa Bureau, Frank Flaherty • Correspondents: Amsterdam, Bangkok, Batavia, Berlin, Buenos Aires, Cairo, Caracas, Copenhagen, Halifax, Johannesburg, La Paz, Lima, Manila, Melbourne, Milan, Montevideo, Montreal, Ottawa, Rio de Janeiro, Sao Paulo, Santiago, Stockholm, Tokyo, Toronto, Vancouver, Vienna, Winnipeg.

PUBLISHER
Paul Montgomery

ADVERTISING MANAGER
H. C. Sturm

BUSINESS WEEK • SEPTEMBER 21 • NUMBER 890
(with which are combined The Annalist and the Magazine of Business) • Published weekly by McGraw-Hill Publishing Company, Inc., James H. McGraw, Founder and Honorary Chairman • Publication Office 99-129 North Broadway, Albany 1, N. Y. Editorial and Executive offices, 330 West 42nd St., New York 18; James H. McGraw, Jr., President; Curtis W. McGraw, Senior Vice-President and Treasurer; Nelson Bond, Director of Advertising; Eugene Duffield, Editorial Assistant to the President; Joseph A. Gerardi, Secretary to the President; J. W. McLean, Vice-President, Business Week, 99-129 N. Broadway, Albany 1, N. Y., or 330 West 42nd St., New York 18. Allow ten days for change of address. Subscription rates—United States and possessions \$5.00 a year. Canada \$6.00 a year. Far American countries \$10 a year. All other countries \$20 a year. Entered as second-class mail Dec. 4, 1936, at the Post Office at Albany, N. Y., under Act of Mar. 3, 1879. Return postage guaranteed. Printed in U. S. A. Copyright 1946 by McGraw-Hill Publishing Co., Inc.—All Rights Reserved.

Take a letter from A to Z

WHEN you turn the telephone dial you are taking control of one of the world's largest and most ingenious machines.

It is a giant mechanical brain which remembers and passes along the letters and the numbers you select. It sets up traffic lights to hold the road open, and reports back if the telephone you want to reach is busy.

Dial has made great strides in

recent years, but greater things are in store.

Some day, Bell Telephone Laboratories will make it possible for you to dial across the United States as simply and promptly as you dial a neighbor now.

All of this is part and parcel of the over-all Bell Laboratories program — to help the Bell System keep on giving you the world's finest telephone service.



BELL TELEPHONE SYSTEM



HOW TO BEAT COMPETITION TO THE PUNCH

*You'll get into production faster . . .
get your goods on sales counters sooner
—when you SHIP BY TRUCK!*

GREATER SPEED! GREATER FLEXIBILITY!
Trucks pick up goods wherever they're made,
grown or packed . . . speed them *direct* to
the point of delivery. No switchyard delay
. . . no "sidetracking"! Modern truck trans-
port is often faster than the U. S. Mails!

LESS HANDLING — BREAKAGE — LOSS!
Goods are often loaded just *once* . . . unloaded
just once! *Extra* crating is unnecessary, be-
cause there's no "humping", no switching,
no jolting. Your goods *roll on rubber*—
naturally arrive in better condition!

LESS INVENTORY. Smaller, more frequent
deliveries by motor freight speed turnover
. . . save valuable storage space!

GREATER ECONOMY. With all these money-
saving features . . . modern truck transport
gives you *greater over-all economy* than any
other transportation system can offer!

No wonder wide-awake businessmen are
specifying "SHIP BY TRUCK"! For more
information on how trucking can help you
. . . write to your State Trucking Association
. . . affiliated with ATA.



THE AMERICAN TRUCKING INDUSTRY
AMERICAN TRUCKING ASSOCIATIONS, WASHINGTON 6, D. C.

SHIP BY **TRUCK** - GET THINGS **FASTER**

WASHINGTON BULLETIN

WHO'LL MAKE THE LAWS?

Odds are that the Democrats will keep control of both House and Senate of the House by a very narrow margin.

The margin in the House will be so slim that Democratic leaders will find it even tougher than during the past two years to muster a majority on domestic issues whenever conservative Southerners cross party lines.

But even a nominal victory looks tremendously important to the party leadership because of its psychological effect on the presidential campaign in 1948. So, six weeks before the election, both parties are preparing to throw more speakers and more money into pivotal states than ever before in an off year.

House Is Republicans' Best Bet

The best chance the Republicans have is in the House. They need only 26 more seats, but to get them they must defeat 30 to 35 sitting Democrats, since the Republicans are sure to lose four to nine of their present districts. Their weakest spots are in California, Ohio, Pennsylvania, Washington, and Connecticut. A confidential memorandum to party leaders from the G.O.P. national committee lists 52 Republican representatives who face stiff fights for reelection.

The Republicans always work under a handicap. The Solid South limits the field in which to look for 35 Democrats they can lick. The G.O.P. is concentrating this year on districts where present Democratic congressmen won by a margin of 5% or less in 1944.

This means the Republicans will make their House fight in key districts of 16 states: New York, Washington, Missouri, Ohio, Wisconsin, Illinois, Kentucky, West Virginia, Pennsylvania, California, Minnesota, Connecticut, Indiana, Maryland, Delaware, and Michigan.

How Senate Contestants Line Up

In the Senate, the Republicans are bucking long odds. They need ten more seats, may lose as many as three seats to Democrats, and have only 18 real contests to work in. Of the 36 seats at stake in November (including four contests to fill unexpired terms) half are in the South or in strong Republican states.

Of the remaining 18 contests, the Republicans are confident of victory in three:

Pennsylvania—Where the Republican Gov. Edward Martin is trying to unseat Sen. Joe Guffey.

Ohio—Where John W. Bricker, former governor and Republican presidential aspirant, faces incumbent Sen. John Hoffman.

Wisconsin—Where Judge Joseph R. McCarthy won the G.O.P. nomination from Sen. Robert M. LaFollette, and is running against former Rep. Howard McMurray.

In four states the Republicans have a distinct edge:

Missouri—Where G.O.P. nominee James P. Kem opposes Sen. Frank P. Briggs.

Delaware—Where Republican businessman John J. Williams is likely to unseat James M. Tunnell, the only senator besides Mead of New York to be given a perfect voting score by the C.I.O.

Idaho—Where former Rep. Harry C. Dworshak opposes George E. Donart, who won the Democratic nomination from Sen. Charles Gossett.

Wyoming—Where Judge Henry B. Henderson is giving veteran Sen. Joseph O'Mahoney the toughest battle of his career.

In three states Democrats are likely to oust Republican incumbents:

Kentucky—Where former Rep. John Young Brown opposes G.O.P. nominee John Cooper.

California—Where former Rep. Will Rogers, Jr., is giving a rough race to Republican Sen. William Knowland.

New Jersey—Where Democratic nominee George E. Brunner may defeat Sen. H. Alexander Smith.

On this basis, the Republicans gain six seats and lose three. To win control of the Senate, therefore, the Republicans would have to win seven of the remaining eight contests for seats now held by Democrats. In these eight states, the election looks like a toss-up:

New York—Where former Gov. Herbert Lehman is opposed by the state Assembly Leader Irving Ives.

Massachusetts—Where Sen. David I. Walsh faces former Sen. Henry Cabot Lodge, war veteran.

Washington—Where Sen. Hugh Mitchell, an appointee who has never made a statewide race, is pitted against former Tacoma Mayor Harry Cain.

Montana—Where Lief Erickson, who defeated Sen. Burton K. Wheeler for the Democratic nomination, faces Zales Eaton.

New Mexico—Where former Secretary of War Patrick J. Hurley is trying to unseat incumbent Sen. Dennis Chavez.

West Virginia—Where ardent New Dealer Harley Kilgore is running again against the same Republican he defeated

six years ago, Thomas B. Sweeney.

Rhode Island—Where the retirement of Sen. Peter G. Gerry deprives the Democrats of one of the best vote getters in the state. They have put up former Gov. J. Howard McGrath, present U. S. Solicitor General, to run against Republican nominee Gurney Dyer, a war veteran.

Maryland—Where Gov. Herbert O'Conor, who took the Democratic nomination from Sen. George Radcliffe, is running against Baltimore Mayor Theodore McKeldin.

L'AFFAIRE WALLACE

Henry Wallace's consent to a gag will take him out of the immediate Russian situation, and out of the congressional election campaign, but that doesn't yet erase him from the political scene.

The titular Secretary of Commerce will talk long and often before 1948 and, whether he stays in the Cabinet or goes, businessmen should realize that when he talks he will not talk for the Truman Administration—or, for that matter, for the P.A.C.

Although Wallace has agreed to refrain temporarily from provoking more discord at a crucial stage in domestic and international politics, this mystical, often eccentric politician is determined to stage a comeback for himself and a rebirth of the New Deal.

Timber That Never Seasoned

His biggest problem is somehow to rebuild the dwindling political stature and the waning political availability of Henry Agard Wallace. Wallace today has the look of presidential timber which was never properly seasoned. For years he was the heir apparent, the man you crusaded for or the man you had to beat.

Somewhere along the line he missed the bus, perhaps because of the same lack of courage he seemed to demonstrate this week. It would be hard to say precisely where. But the high point in his political and personal growth had already been passed on the day in 1944 when Sidney Hillman's P.A.C. turned against him to string along with Roosevelt's choice of Harry Truman for the vice-presidency that led to the White House. P.A.C. may have regretted its choice, but Henry is no longer its hero.

A Man Making a Platform

Wallace's New York speech was his first step in an effort to regain the lost ground, to put himself in line—remotely,



**President of
General Heat Treating Co., Cleveland
says**

**GAS "does a better job"
in his 26 heat treating furnaces**

Mr. Joseph Sindelar, President of the busy and progressive General Heat Treating Company of Cleveland, finds Gas and Gas equipment do a better job in meeting the exacting specifications required by his customers. All manner of metal parts including high speed steel, dies, broaches, tool steels, springs, bolts and engine parts pass through the Company's 26 Gas furnaces for a wide variety of heat processing.

Mr. Sindelar believes that Gas furnaces enable him to turn out work of the highest quality. He finds Gas fuel speedier, most accurately controllable for precise temperatures and finds Gas is unsurpassed for flexibility—an

important factor in custom heat treating—where wide variation in size, type of product and heat treatment necessary, is encountered.

Whether you operate an independent heat treating establishment or whether heat treating is an integral operation in your production line, Gas is your recommended fuel for securing any desired characteristic in metals—and for doing it faster and more economically. The Industrial Engineer of your local Gas Company will gladly help you achieve these objectives.

American Gas Association

420 Lexington Avenue, New York 17, N.Y.

MORE AND MORE...

THE TREND IS TO GAS

FOR ALL
INDUSTRIAL HEATING

WASHINGTON BULLETIN (Continued)

as an alternate to Truman in 1948; more realistically, as a possibility for the vice-presidency in '48 or the candidacy in '52.

To do this, Wallace has been formulating a platform, a body of policy, around which he hopes liberal Democratic opinion will crystallize. He is committed to the Democratic Party. But he wants to shape Democratic policy.

Wallace started his campaign with the foreign policy issue because U. S. relations with Russia are rapidly becoming

The Wallace speech has important implications in the field of international business and finance as well as in politics. An analysis of the probable impact on foreign business of an unsettled American foreign policy is presented in *The International Outlook* (page 107).

the touchstone on major domestic issues (BW-Sep. 14'46, p5). And he shrewdly chose a time when many people who have been applauding attacks on Russia are beginning to have qualms about the increasing intimations that we might applaud ourselves into a fight. By accepting the White House gag Wallace has sacrificed the chance to follow through on his shrewd timing.

Somewhere Left of Center

In building a platform, Wallace is staking out for himself the left-of-center location that paid off for Roosevelt. He's disappointed now at the immediate P.A.C. reaction to his first speech. Sen. Claude Pepper's frankly pro-Russian position—which was cheered by the same Madison Square Garden crowd that booed Wallace—is much closer to the center of gravity of P.A.C. opinion. Only in the right-wing of P.A.C.—among such men as C.I.O. Secretary James Carey—did Wallace find wholehearted approval.

But for the longer haul, Wallace clearly hopes that he can recreate the Roosevelt role.

Wallace is more likely to score for his policy than he is for himself.

A Public Uncertainty Is Revealed

As he came out of the White House Wednesday night, few were ready to grant him much of a personal political future. But the response to his first speech suggests the policy effect his program may have. Although it was promptly repudiated by the White House, the speech uncovered a division, an uncertainty, in public feeling which, unless it dies rapidly away, will have to be assayed by a modification of official policy.

The biggest mystery in L'Affaire Wallace is the motive of President Truman's gratuitous advance endorsement of the New York speech. The widespread initial assumption that it was a pure piece of presidential ineptitude was pretty well undercut by this week's revelation that Wallace had previously acquainted Truman with his views in great detail.

One view heard in Washington was that the whole incident is a trial balloon—an attempt to gage the solidity of public support for an adamant foreign policy.

Under the by-line of Edwin Lahey, labor reporter for the Knight newspaper chain. It is well-known in both government and labor circles that Lahey is closer to Murray than any man outside of union ranks who shares his interests. Although the Murray denial of any such possibility came quickly, Lahey's authorship of the story leaves many people believing that the story may at last be true.

WAGE CONTROL FADING

No new wage control policy seems likely to come out of President Truman's request this week that the OWMR advisory board review the situation.

The National Wage Stabilization Board, as such, may be liquidated but the prospect is that present wage stabilization regulations will be retained, with such expedient improvisations as can be conjured up to cope with specific

MURRAY RUMORED OUT

Philip Murray's denial that he will resign the presidency of the C.I.O. at its convention in November, retaining only his office as head of the steelworkers union, sounded less convincing than it ever has before.

The perennial rumor of Murray's partial retirement appeared this time un-

Search for Economists Delays Council

President Truman's Council of Economic Advisers is charged with the duty of seeing the nation's economy clearly and seeing it whole, but at the moment its main preoccupation is finding a half-dozen broad-gauge economists who will work for \$10,000 a year. By December, according to the terms of the employment act of 1946, the council must be ready to brief the President for his first report to Congress, and so far it has no staff.

To aid in assembling staff and perhaps to form part of it, the council has persuaded Prof. Paul T. Homan to delay his return to Cornell. As managing editor of the American Economic Review, official publication of the American Economic Assn., Homan has a wide acquaintance among the profession. He is of the same generally conservative stripe as Chairman Edwin C. Nourse, who stepped into the job from Brookings Institution (BW-Aug. 3'46, p7), but he has been more active in government. He served OPM, then WPB, and spent a year in England for UNRRA. He is the author of Government and Economic Life.

The board's December report will not be made public. Although it has the prerogative of taking any warnings of impending trouble to the



Paul T. Homan

public, if they were ignored by the Administration, the board presently conceives its purpose as being to serve the President on a highly professional plane—not to get involved in the hurly-burly of practical policymaking. Its findings will go to the White House for such use as President Truman cares to make of them in formulating his own report to Congress.

Easier and Faster Handling of **PAYROLLS**

Straight-time, overtime, total pay, day work, piece-work, bonus work, or any combinations are produced easier and faster with controlled accuracy on a Merchant Calculator. * In handling payrolls, as in all figure work, Merchant's 20 Points of Superiority give today's highest calculator performance. The Merchant Man in your phone book will be glad to prove this statement.

*Send for Index 146
Merchant Method pamphlet, payrolls.



situations, as in the maritime fiasco (pages 16, 116).

All this is with the idea of stalling until next spring, when there's a chance of dumping price control. This makeshift approach risks recurrence of crippling strikes, in the meantime, as preferable to letting wages and prices zoom now.

Such strikes would, however, renew and increase pressure for establishing permanent, statutory machinery for the settlement of big disputes. This is engaging the OWMR board's attention—with the idea that Truman may be ready with a recommendation to Congress in January. At the same time the board is poking into means of setting up some organization to hold a brake on wages, when the tripartite NWSB collapses.

—Business Week's Washington Bureau

THE COVER

The livestock and meat industry came back smack into the public eye when price control was reimposed upon it this month, and meat simultaneously disappeared from most dinner tables.

The situation today (page 17) is unhappy for all packers. They get the blame, but are unable to do much about it because they are shackled by price restrictions which unscrupulous newcomers blithely ignore.

Under such circumstances, the president of the biggest unit in the industry is put to a test. But John Holmes of Swift & Co. has refused to get unduly excited. He knows that Americans want to eat meat, and that present troubles will eventually wash away. In behaving thus, he surprises no one who knows him.

Swift's president was born in Ireland 55 years ago, came to Chicago with his parents when he was six. At 15 he hired out to his present employer as messenger boy, and moved up steadily.

After a career as timekeeper, clerk, and plant executive, he was placed across the desk from Gustavus F. Swift as assistant.

When Holmes became president in 1937, his red hair still showed through the gray. His growth to that position had been so gradual that it had left him apparently quite unaware of the distinction that he had achieved as an important figure in a great industry. His fellow meat packers consider him a friendly, solid citizen, who can be relied upon in a pinch, and he seems content to let it go at that.

The Pictures—Harris & Ewing—7, 15; Press Assn.—16, 22, 102, 109; Jacob Lofman, Pix—19; Acme—36, 92, 100, 110; Int. News—41; Ross, Pix—51.

A likely supplier for you in BINGHAMTON

sees the "big game" each year
with the President of the
Marine Midland Bank there



Business, in essence, is still—*people*. Your ability to get needed materials in New York State may depend on having accurate, current information as to new sources. This can well come from someone who knows the local business firms and the people who run them.

In 42 communities of New York State the officers of the Marine Midland Banks often have this first-hand knowledge that you need. It's their job to know the business of their community . . . it's their pleasure to know the men who head it up. Ask Marine Midland.



**The
MARINE MIDLAND
TRUST COMPANY
of New York**

120 BROADWAY

Member Federal Deposit Insurance Corporation

BUSINESS WEEK • Sept. 21, 1946

THE OUTLOOK

BUSINESS WEEK
SEPT. 21, 1946



Another good rise in employment indicates that durable goods production must be working up to something not too far from full swing.

So does the \$1,600,000,000 rise in inventories (page 15).

Yet we cannot ignore these facts: (1) Shortages of skilled labor still exist; (2) disappointing man-hour production and threats of strikes hamper advance scheduling of output; (3) profit prospects right now don't seem to warrant extensive outlays on plant and equipment; and (4) inventories still are not in balance.

Management men have lost some of their earlier optimism. The break in stocks is just another dash of cold water.

The big home-building program, vital as it is, now is proving to be a serious handicap to other lines of business.

Steel users complain that they aren't getting their normal share of the mills' production. Following this down, they find that one cause is the big set-aside of pig iron for housing, farm implements, and brake shoes. (Farm equipment, as a result, has been cut out of the pig set-aside for the fourth quarter.)

Construction other than homes, meanwhile, feels the pinch of the further crackdown on "nonessential" building.

And from now on, nonpriority users of lumber and lumber products will feel the little-publicized increase in the set-aside for veterans' housing which takes practically all the millwork and hardwood flooring.

Industry faces another very important potential competitor for raw materials in the military.

Unless the Army and Navy get their ears pinned back on industrial mobilization for war (BW—Sep. 14'46,p5), you may expect the big brass to get back to the wartime habit of asking for everything in sight.

For all the trouble industry may experience from the over-ambitious housing program and potential military orders, these two activities constitute a deep cushion against any serious business recession.

Resistance to preposterous home-building costs won't stop building.

In the first place, if business activity were to slacken, building costs would go down at least to the extent of the black market take.

In the second, if costs scare off builders, a big program of federal-aid housing will result. When the cry is raised that this must be done for the veteran, there will be no heading it off.

Any increase in military expenditures will mean a bigger deficit. The effect would be doubled if business should slip simultaneously.

The arms program in the 1946-47 fiscal year has been stepped up by more than a billion already. Otherwise the revised budget estimates (BW—Aug. 10'46,p15) would show a small surplus instead of a deficit of very nearly a billion.

It is easy to see what happens if more money is spent on arms.

And it is equally clear that tax revenues would be sharply reduced if there were any slackening of business activity accompanied by layoffs.

Business indicators generally continue to point in the right direction;

THE OUTLOOK (Continued)

BUSINESS WEEK
SEPT. 21, 1946

one of the most critical, steel production, is refuting pessimistic talk by holding close to 90% of capacity despite the scrap pinch.

Manufacturing employment was up 314,000 from July to August, about half the gain being in durable goods. Thus payrolls continue to rise, supporting consumer income and contributing to record retail sales.

And, even as store volume rises, it has been possible to increase inventories for the expected holiday boom.

If any danger signal is to be seen, it would be in the fact that this inventory accumulation might be carried too far.

At the July-August rate of rise, inventory (at all levels) is being built at the rate of \$10 billion a year. Dept. of Commerce experts who compile the figures don't believe there are any excesses as yet.

Business, if we are to judge by the rate of ordering, does not even begin to feel comfortably stocked up so far. Bank borrowings, which gave an advance signal of July-August inventory accumulation (BW—Aug. 31 '46, p9), still are going up at a record pace.

Observing the inventory rise is one thing, but trying to tell when it has gone far enough—or too far—is something else again.

There is no present reason to consider that time near at hand. But, when warehouses fill up with washing machines that lack motors or cotton textile manufacturers pile up goods awaiting a price determination, there can be trouble brewing.

Maybe washing machine manufacturers will stop turning out their product, lay off a few people, until they can get motors.

Perhaps textile mills will run out of credit and throw accumulated merchandise on the market too suddenly.

Watching bank loans and unemployment figures may give some clew because in these there is less time lag than there is in compilation of over-all inventory total. But the best plan is to keep a watchful eye on your own stock rooms.

Cement shortages are by no means the worst ones affecting the housing program, but steps are being taken to relieve them.

The trouble has not really been lack of capacity but a combination of circumstances that have caught up with the industry. The chief factor is undermaintenance during the war when cement wasn't essential.

To correct this, the Civilian Production Administration is permitting mills to use CC priorities to obtain production materials; construction materials at existing plants; maintenance, repair, and operating supplies; and capital equipment for replacement.

Less can be done about labor and transportation shortages.

As far as the industry's capacity goes, this will not be increased except in areas where local shortages exceed the national pinch.

Head of one of the large steel companies has an idea about how to catch up with all our shortages. He urges all manufacturers to reconcile themselves to present operating rates instead of striving to make their scheduled goals, to stop hoarding labor, and to wait for things to loosen up before trying to attain postwar production bogeys.

AUTOCAR TRUCKS COST MORE Because they're worth more!

... and this means an unshakable pride of ownership,
as the nation's truck-wise buyers are confirming daily.

THE AUTOCAR COMPANY
Ardmore, Penna.

Factory Branches and Distributors
from Coast to Coast





This sign tells you more than just "Stop"



TOP, it says, and you know you'd better. But in flashing that word out of the darkness, it tells something you may not know about aluminum.

That's what those gleaming letters are made of—bright, shiny aluminum that bounces your headlights back at you.

It might pay you to think a bit about this commonplace example of aluminum's high reflectivity—or about some less familiar ways in which this advantage of aluminum is being put to good use.

For instance, night baseball parks and airports are flooded with light by reflectors made of Alcoa Aluminum with an Alzak finish.

And here's a point to remember: Alzak-finished aluminum isn't subject to tarnish.

But reflectivity is only one of the reasons why men with ideas are working them out in Alcoa Aluminum. Maybe you, too, can profit from a look at the economic advantages of aluminum. We'll be glad to take a look with you... to open up for you the greatest fund of aluminum experience in

the world. Sales offices in leading cities. ALUMINUM COMPANY OF AMERICA, 2104 Gulf Building, Pittsburgh 19, Pennsylvania.

ALCOA
FIRST IN
ALUMINUM



lead-
ANY
uild-
ania.

M

T
PR
S
I
D
E
S
C
V
S
C
T

FIN
90
M
H
C
P

BAND
D
T
C
S
U
O
E
T

1923-25=100

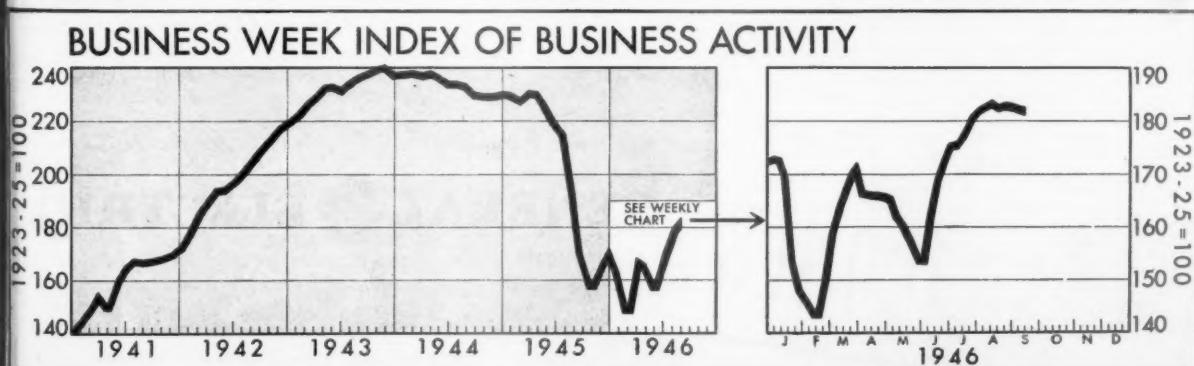
WUSIN

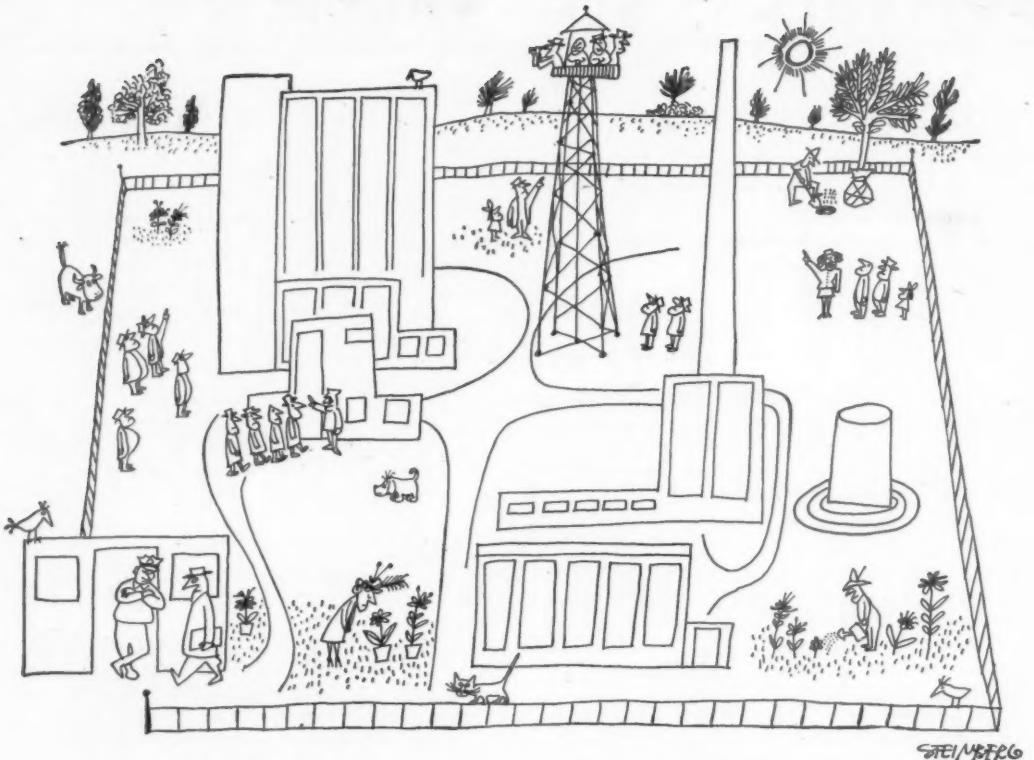
FIGURES OF THE WEEK

	\$ Latest Week	Preceding Week	Month Ago	Year Ago	1941 Average
THE INDEX (see chart below).	*182.7	183.0	183.2	171.5	162.2
PRODUCTION					
Steel ingot operations (% of capacity).....	89.1	88.5	89.7	83.2	97.3
Production of automobiles and trucks.....	87,078	†72,535	88,990	12,910	98,236
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands).....	\$16,386	\$15,179	\$19,226	\$7,897	\$19,433
Electric power output (million kilowatt-hours).....	4,521	4,184	4,422	4,106	3,130
Crude oil (daily average, 1,000 bbls.).....	4,773	4,800	4,843	4,538	3,842
Bituminous coal (daily average, 1,000 tons).....	2,188	†2,094	2,058	2,003	1,685
TRADE					
Miscellaneous and L.C.L. carloadings (daily average, 1,000 cars).....	88	87	84	78	86
All other carloadings (daily average, 1,000 cars).....	65	64	65	65	52
Money in circulation (Wednesday series, millions).....	\$28,499	\$28,506	\$28,353	\$27,793	\$9,613
Department store sales (change from same week of preceding year).....	+50%	+45%	+30%	None	+17%
Business failures (Dun & Bradstreet, number).....	31	14	17	7	228
PRICES (Average for the week)					
Spot commodity index (Moody's, Dec. 31, 1931=100).....	328.4	327.0	348.5	255.9	198.1
Industrial raw materials (U. S. Bureau of Labor Statistics, Aug., 1939=100).....	203.9	203.5	202.9	168.1	138.5
Domestic farm products (U. S. Bureau of Labor Statistics, Aug., 1939=100).....	290.1	289.1	308.4	225.3	146.6
:Finished steel composite (Steel, ton).....	\$64.45	\$64.45	\$64.45	\$58.27	\$56.73
:Scrap steel composite (Iron Age, ton).....	\$19.17	\$19.17	\$19.17	\$19.17	\$19.48
:Copper (electrolytic, Connecticut Valley, lb.).....	14.375¢	14.375¢	14.375¢	12.000¢	12.022¢
:Wheat (Kansas City, bu.).....	\$1.95	\$1.94	\$1.95	\$1.62	\$0.99
:Sugar (raw, delivered New York, lb.).....	4.48¢	4.20¢	4.20¢	3.75¢	3.38¢
Cotton (middling, ten designated markets, lb.).....	36.58¢	36.48¢	35.79¢	22.56¢	13.94¢
:Wool tops (New York, lb.).....	\$1.330	\$1.330	\$1.330	\$1.330	\$1.281
:Rubber (ribbed smoked sheets, New York, lb.).....	22.50¢	22.50¢	22.50¢	22.50¢	22.16¢
FINANCE					
90 stocks, price index (Standard & Poor's Corp.).....	120.4	121.5	141.8	125.3	78.0
Medium grade corporate bond yield (30 Baa issues, Moody's).....	3.09%	3.06%	3.04%	3.25%	4.33%
High grade corporate bond yield (30 Aaa issues, Moody's).....	2.58%	2.55%	2.51%	2.62%	2.77%
Call loans renewal rate, N. Y. Stock Exchange (daily average).....	1½-1¾%	1½-1¾%	1½-1¾%	1.00%	1.00%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate).....	2-2½%	2-2½%	2-2½%	2-2½%	2-2½%
BANKING (Millions of dollars)					
Demand deposits adjusted, reporting member banks.....	39,619	39,437	39,078	38,671	23,876
Total loans and investments, reporting member banks.....	59,212	59,096	59,910	61,812	28,191
Commercial and agricultural loans, reporting member banks.....	8,765	8,607	8,295	6,095	6,296
Securities loans, reporting member banks.....	2,894	3,039	3,208	3,963	940
U. S. gov't and gov't guaranteed obligations held, reporting member banks.....	40,595	40,492	41,460	45,823	14,085
Other securities held, reporting member banks.....	3,431	3,427	3,458	3,336	3,710
Excess reserves, all member banks (Wednesday series).....	810	840	980	964	5,290
Total federal reserve credit outstanding (Wednesday series).....	23,935	24,011	24,238	23,677	2,265

*Preliminary, week ended September 14th. †Revised. ‡Ceiling fixed by government.

§ Date for "Latest Week" on each series on request.





Our New Plant Will Make A New Kind of Oil — Out of Sand!

DOES that sound fantastic? Well, just wait until you hear what this new oil will do. Heat can't thin it out. Cold can't thicken it up. And we're getting ready to turn out plenty of it in the wonderful new plant we're building now in Waterford, New York.

It's a new kind of factory—for new kinds of products. And we are building it just as fast as we can, because already a lot of people are pretty anxious to start using the things it's going to make. They'll be the products of that startling

development in chemistry you have been hearing about—silicones. And silicones are going to reshape and improve a lot of things. . . .

For instance, during the war General Electric's pilot plant for silicones produced a rubber that's completely indifferent to temperatures that would kill ordinary rubber—600 F to 60 below zero. It will produce baking enamels that outwear any others known . . . water-repellent coatings that make the proverbial duck look silly . . . greases . . . varnishes . . . plastics

. . . all practically impervious to heat and cold! And in all these G-E silicone products, silicon from sand—a very special kind of sand—is a basic ingredient.

As soon as this new factory of ours at Waterford is completed, we'll start volume production on all these silicone products. That should be after the first of the year. In the meantime if you see silicone possibilities in your business, just write for information to the Chemical Department, General Electric Co., Schenectady 5, N. Y.



GENERAL  **ELECTRIC**

Inventories Not Dangerous—Yet

Considerable imbalance, dickering with OPA, and higher evaluations are responsible for spectacular upswing. Rumors of deliberate hoarding aren't sound enough to cause official worry.

Two weeks ago the vice-president in charge of merchandising for a big mail-order house hopefully came to New York City to pry loose the merchandise that manufacturers reputedly have squirreled away for higher prices. Last week he was back home, disillusioned. There had been nothing to buy.

Not since the end of the war have there been so many rumors of hoarding, of caching away price-susceptible merchandise, of warehouses bulging with almost anything you can name. And, the Dept. of Commerce a few weeks ago estimated that manufacturing inventories rose a record \$600,000,000 in July (BW—Aug. 31 '46, p9)—a figure that was later revised upwards to a spectacular \$800,000,000.

• **Reasons for Rise**—But neither Commerce officials nor industry itself is much worried over the hoarding rumors—yet. In almost every instance the bubble succumbs to the prick of three sharp facts:

(1) Inventories are rising because of imbalances—too much of one thing to match up with another—coupled with the necessity of filling the pipeline.

(2) About one-fifth of the upturn is due to higher evaluation, the Dept. of Commerce believes (some economists say it's much more than that).

(3) There is some involuntary jamming up—as distinguished from deliberate hoarding—because of temporary price situations.

Of July's \$800,000,000 rise, half was in raw materials. The other half split 50-50 between goods-in-process and finished goods. Currently, there is good reason to believe that August manufacturing inventories will jump approximately another \$800,000,000, and that the same 2-1-1 split between raw materials, goods-in-process, and finished goods again will occur.

• **Spot Checks**—Although the July-August upswing is so worthy of attention that rumors and uneasiness are the inevitable result, the preponderance of the rise in raw material stocks immediately suggests inventory imbalances. Here is what spot checks by Business Week representatives turned up:

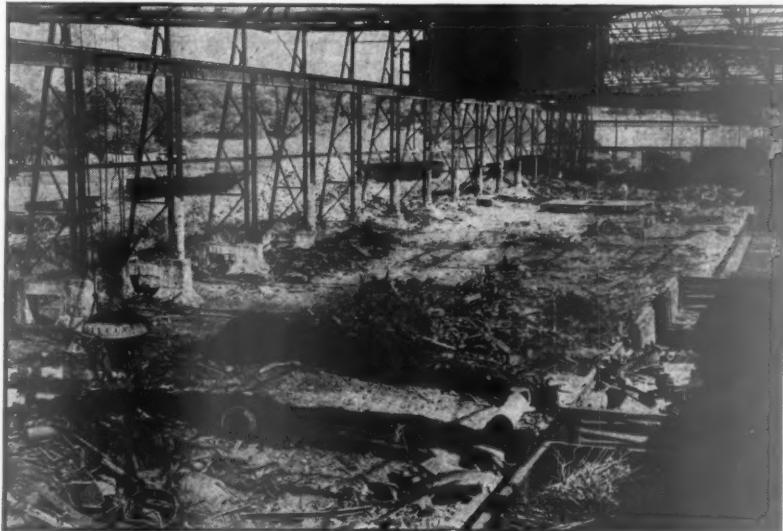
Automotive industry: The composition of inventories is snarled. Some materials are in good supply, others

very scarce. Put all the stuff together and you still wouldn't have a flood of finished cars. But manufacturers hopefully keep buying materials on the chance that a higher level of production is just around the corner. Is there any hedging against prices? Some, perhaps. But it probably isn't much of a factor. As one Detroit banker dourly described his automotive clients: "They're in business to produce—not speculate."

Home appliances: Raw materials and goods-in-process are stacking up in some spots. Warehouses brimming with washers and ironers are not uncommon. Only trouble is that machines lack motors.

Pile-ups due to temporary price situations are most common in textiles and shoes. The cotton textile fraternity had an especially hard bout with OPA over adjustments due to wages, prices of raw cotton, and ceilings on work clothing. While the scrap was in progress, mills admittedly loaded their warehouses to the rafters.

• **Why Hoard?**—But the textile people vociferously deny hoarding. They want to get rid of their stocks as quickly as they can do so without breaking the price. All are aware that buyers from big department stores are sitting around



While manufacturers' inventories continued to accelerate at a record rate, a spot check revealed serious imbalances that tied producers' hands. General Motors' Charles E. Wilson (right) said in a press conference that the prospect of a lead shortage was forcing his company to consider shipping cars without storage batteries; pig iron and copper might soon be lacking for other parts. And an almost exhausted scrap pile (above) at Sheffield Steel Corp.'s Kansas City (Mo.) mill resulted in a partial plant shutdown early this month; with the help of customers who scoured their own scrap piles, Sheffield later was able to fire up the dead furnaces.





The end of A.F.L.'s maritime strike brought together Joseph Curran (left), C.I.O. seamen's chief, and Harry Bridges, longshoremen's leader, to demand for C.I.O. maritime workers pay boosts in line with those allowed the A.F.L.

hoping that some strapped manufacturer will make the mistake of dumping.

And from a longer-range viewpoint, the textile makers know their inflated market is growing thinner, that hoarding is, therefore, a fool's game. Here is how they figure it: Sales of nondurables in the first quarter of 1946 were \$13 million above what they normally should have been at 1946 income levels; this was largely due to the absence of hard goods, sales of which were \$14-million below a normal sales-income relationship (BW—May 4 '46, p. 66). Conclusion: When hard goods return in quantity, the sale of nondurables will drop considerably; prices, too, will soften; so why hoard?

As for shoes, inventories are rising while new prices pend on kids and kangaroos. Here, too, the situation is thought to be temporary.

• **Economists Uneasy**—For the nonce, therefore, imbalances, dickering with OPA, and higher evaluations would seem to explain the inventory increases of July and August. But some economists are uneasy. Maybe there isn't much danger now, they say, but possible alterations in production schedules because of the expectation of lower profits (as reflected in the performance of the stock market) may damp down raw materials requirements, and thus make inventories proportionately too large.

Agreeing for once, business and Washington rule out that possibility for a few months, at least. Yet none will deny that it exists, and that in these times—when one headline announces inflation, and another hails a bear market—any inventory is bound to be "hot."

Wage Surrender

Maritime strike reveals inability of Administration to defend even indirect controls. Union hand is strengthened.

Inability of the Administration to defend even its limited, indirect wage controls against a determined union attack was aptly demonstrated by the surrender of John R. Steelman, Economic Stabilization Director, to the demands of striking A.F.L. seamen. Steelman exposed this weakness, already widely suspected, to other branches of organized labor which are going to the mat again with industry, and, as seems likely, with the government.

• **Widespread Effects**—Steelman's approval of the wage increases which the National Wage Stabilization Board rejected as inflationary not only caused the C.I.O. maritime workers to strike for the same increase, but also set an example which other unions might follow if they want to hold a position of leadership in today's intense interunion rivalry.

Despite the narrow technical application of Steelman's tampering with the wage regulations, the general effect will be widespread. Because of the precedent set, the Administration stands weaker today in its announced determination to stall "second round" reconversion wage boosts.

• **Another Picket Line**—Only last month, when Steelman refused to ap-

prove, for price relief purposes, another round of raises put into effect by Pacific Northwest lumber companies, observers knew that the real test of the Administration's resistance would come when it was confronted with a strike for a wage increase contingent on government approval (BW—Aug. 24 '46, p. 5).

Even as Steelman was capitulating to the A.F.L., the C.I.O.'s Committee for Maritime Unity, which last June negotiated and got approval only for the \$17.50 monthly increase which NWSB used as a pattern against the A.F.L. unions, substituted its picket lines for those of the A.F.L. It asked for the same increases and got support from Philip Murray, C.I.O. president.

• **Other Demands**—Next in line are the longshoremen, both A.F.L. and C.I.O., who are seeking wage adjustments.

R. J. Thomas, vice-president of the United Automobile Workers (C.I.O.), has already warned that any increase above the 18½ pattern will have to be reflected in auto industry contracts.

Negotiations are likewise coming to a head in meat packing, where 16¢ was awarded last winter. Even if the packinghouse workers were to accept only 2½ more to come up to the 18½, another change in the rules would be necessary if meat prices were to be affected.

The C.I.O. electrical workers at their recent convention resolved to start another drive for wage increases.

• **Comparable Wages**—Steelman's action authorized government ship operators, in this instance the Maritime Commission, to pay wages comparable to those paid by private operators if (1) government operations constitute less than half the total operations of the industry, and (2) a "substantial part" of the remaining operators are paying the higher wages.

One other provision stipulates that the wage increases may be absorbed by the government on ships operated for the Maritime Commission, but private ship operators who pay the extra \$5 and \$10 may not use these amounts as a basis for seeking higher freight rates without obtaining NWSB approval—an unlikely eventuality.

The unapproved cost adds \$30 to \$80 a month to the total monthly expense of \$10,700 for operating a Liberty ship. NWSB approved wages and benefits amounting to \$2,250 a ship. The A.F.L. strike ended when government-owned vessels put into effect a pay scale which had been negotiated between the union and some private operators, and which NWSB had refused to approve in entirety.

To get the seamen back on the privately operated ships, the steamship companies affected had to absorb the wage increase for able seamen without getting immediate rate or subsidy relief.

Meat Famine Deepens

Cause of shortage fiercely debated as legitimate packers give way to black market operators. Seasonal scarcity is aggravated by early-summer marketing. Some easing likely by winter.

• **Current Situation**—Meat supply extremely short throughout U. S. Meat was served last Sunday on probably less than 25% of American dinner tables, and it has been no easier to obtain since then.

• **Forecast for 1946**—Equally short meat rations for a few weeks. More beef in about 30 days, but mostly stringy meat from grass-fed range cattle. Pork continuing scarce, but slightly more plentiful by late November. Lambs, always unimportant in total meat tonnage, are in short supply. Sudden easing, but only temporarily, in meat of all kinds if OPA price controls should be removed or radically relaxed.

• **Forecast for 1947**—Easing supply of better-quality beef by Feb. 1, becoming more plentiful in spring. Pork continuing scarce until autumn, thereafter actually plentiful. Lamb probably short until midsummer.

The meat situation, complex as it is, can be summed up in these few sentences. But the facts and forecasts by no means tell why U. S. stockyards'

cattle, hog, and sheep pens are almost empty day after day.

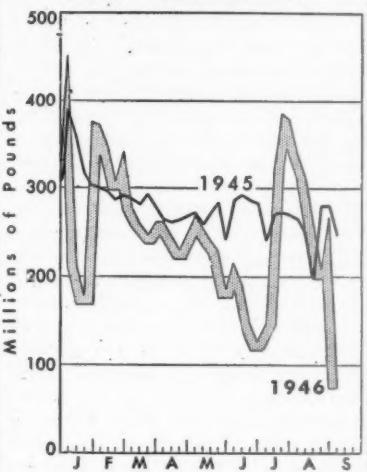
Dept. of Agriculture figures show that the scarcity coincides with the re-establishment on Sept. 1 of price controls on livestock and upon meat sold by slaughterers. Black markets are booming again, and the entire situation seems to be out of hand.

• **Causes Disputed**—No one disputes these facts, but agreement ends right there. Typical is the violent disparity of views held by the two biggest labor unions in the industry, both of them hard hit by layoffs.

The C.I.O. United Packinghouse Workers holds contracts for the greatest number of men in packing plants. At the week end it came out strongly for continuing price controls upon livestock and meat, and asked government regulation of meat packing as the only way to regularize supplies. It accuses them of a sitdown strike aimed at killing off OPA.

The packers snort that they would not set out to go broke to spite a government bureau. They say that unless again becomes possible for them legally

MEAT OUTPUT HITS NEW LOW



Data: Dept. of Agriculture.

© BUSINESS WEEK

Meat production in the big federally inspected plants shot up in July and August while price ceilings were off—and now we are paying for it. Salable animals have been eaten. What's more, critters coming to market are lightweights and most of them are sold into the black market anyhow.

to buy livestock for processing, instead of watching order buyers acting for black market operators pay more than a lawful packer can pay for his raw material, then go broke they eventually must.

• **Decontrol Urged**—The A.F.L. Amalgamated Meat Cutters & Butcher Workmen has the second largest block of packinghouse employees and includes great numbers of wholesale and retail employees. It is campaigning furiously for removal of all OPA controls on livestock and meat, asserting that only in a free-price economy can the industry reemploy its workers.

Meat wholesalers, retailers, and restaurant men have been shouting for OPA's blood. Retail butchers took bad beatings in previous meat famines; many went out of business; others impaired their financial vitality. Retail trade spokesmen warn that unless the crisis ends soon with removal of price controls, many more store doors will close.

• **Special Factors**—Major packers point out that the tag end of summer is traditionally the season of shortest meat supply. This year the seasonal scarcity is accentuated by two special circumstances.

(1) During recent years, price ceilings have exerted a double pressure toward late-summer meat scarcity. Packers traditionally kept pre-OPA consumption in step with supply by adjusting



A LIGHT FOR VULCAN

Birmingham's ungainly but famous Vulcan (right), atop a 126-ft. WPA-built pedestal, has been drafted by the local Chamber of Commerce to remind Alabama citizens of traffic safety. Public subscriptions of \$1,500 paid for a new electric torch (above), which normally glows green but shows red for 24 hours after a traffic fatality has been reported.



their selling prices. But with rigid price ceilings proportionately lower than pay envelopes, meat sells as fast as it can move. Industry custom in spring was to build up inventories of fresh meats in cold storage and cured meats in pickle cellars because this product could be sold at higher prices starting in August. With no seasonal price increase permitted by OPA, packers have been better off to sell at once. Absence of meat price controls in July and August of 1946 put a further premium on selling.

(2) Farmers hustled to market during OPA's inactive weeks every salable meat animal, stripping their pens and pastures of critters that otherwise would have been ready for slaughter now. Passage of a few weeks will take care of this problem.

• Farmers' Strike—As soon as OPA lapsed on July 1, livestock producers found that they had been selling at OPA-set prices animals which were worth \$10 or \$12 more per cwt. in the open market. They were accordingly bitter when OPA this month restored livestock to price control. They still are. A large part of the current shortage of livestock at market is directly due to farmers' unwillingness to sell at present prices, and their profound confidence that if they are stubborn enough, Washington will have to do better by them.

Prospects are poor for more pork until the fall of 1947, and little can be done about it. The typical Corn Belt farmer last fall was unhappy at Washington's performances and promises about hog prices. So he kept the boar penned away from the sows. The consequence was that the 1946 spring crop of pigs was smaller than usual. These must provide most of the pork to be eaten between now and next April. Moreover, this summer's price-control

holiday sent unusual quantities of sows to market. Now, many gilts that would normally become this winter's hams and pork chops will have to be held back for breeding stock.

• Year to Go—Last spring's breeding season was an even more ascetic time for the boars because hog feed had run surprisingly short. Result: One of the smallest pig crops in recent years will be farrowed this fall.

Things will be different after that. The bumper corn crop now reaching maturity should bring a world's record crop of pigs next spring. But they will not be ready for eating, except as sucklings, until the autumn of 1947.

Cattle cannot be multiplied so rapidly as hogs, but under present circumstances the yield of beef can be increased faster than the yield of pork because of the large cattle population on range.

• Quality Drop—When the rancher sends range cattle to market packers and feeders bid. If the packer wins, the grass-fed stuff is butchered.

If the feeder optimistically outbids the packer, he ships his purchase to his farm and puts it on grain feed. At present costs, unless the feeder, besides adding weight, can also boost the animal's quality enough to sell it for at least 3¢ a pound above what he paid by the pound, he considers that he has lost money.

This required per-pound profit is the reason why really good beef has been so scarce. To save feed and force cattle to slaughter, OPA set upper-grade beef differentials too low to pay the feeder. The best he could do was to give the critters a 60-day warm-up on grain to produce a tolerable grade of beef, instead of feeding from six months to a year to produce top-grade finished beef.

Livestock and Meat Lexicon

• Cold Storage—Beef and lamb can be kept chilled for weeks or frozen for months without serious deterioration. Frozen pork loses its texture after thawing, hence can be frozen only for sausage and similar low-value uses.

• Corn-Hog Ratio—Price of 1 bu. of corn divided by price of 100 lb. of hog. If the resulting fraction is larger than $1/10$ — $1/9$, $1/8$, etc.—farmers traditionally sell their corn. If the resulting fraction is less than $1/10$ —say $1/11$, $1/12$, etc.—farmers find it more profitable to feed the corn to hogs and sell it as meat. (This ratio is based on the rule-of-thumb that 10 bushels of corn put about 100 lb. on a hog.)

• Feeder—Farmer who buys range cattle to fatten, usually on grain that he raises. Also, a beef animal for grain-feeding.

• Feedlot—Specialized cattle-feeding operation; a feedlot operator usually buys part of his feed and all of his animals.

• Order Buyer—Broker at stockyards who represents the buyer; a commission man in reverse.

• Pickle Cellar—Usually an entire building where pork for curing is kept in brine until ready to be smoked.

• Range Cattle—Grass cattle.

• Stocker—A range beef steer or heifer purchased by a farmer for further pasture before grain feeding.

Future Americans

Census officials predict U.S. population peak in 1990, with middle age creeping up on us. Westward shift to continue.

Still picking at the population jackstraws that the war helped mix up, the Bureau of the Census last week reported some revised estimates of the eventual size, age, and movement of the country's population.

• Peak in 1990—According to revised estimates, the U. S. population peak may come a little farther in the future and go a little higher than previous studies indicated (BW-Mar. 9 '46, p4). The zenith is now predicted for the year 1990, after which the population will begin a slight recession, thus:

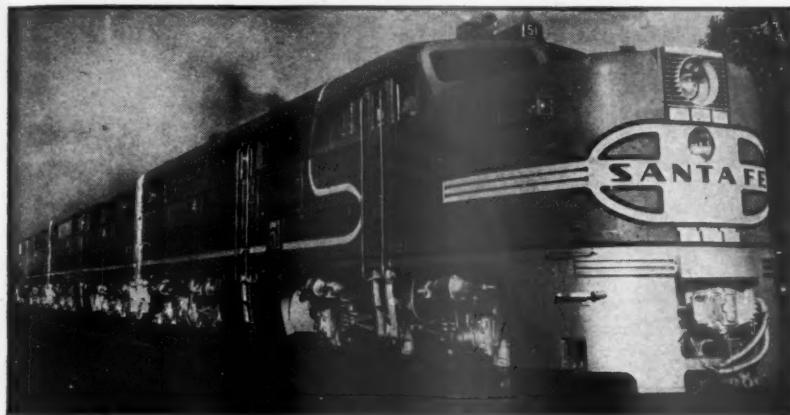
	Population in Thousands
1940	131,669
1945	139,621
1975	162,337
1990	164,585
2000	163,312

• Growing Older—Although the war indirectly stimulated marriage and birth rates, thereby causing an upsurge in the population aged less than ten, the long-term trend is toward the higher age brackets. The present median age of the population is 29.9 years. By 2000 it is expected to be 37.4. Here is how the picture looks now as against the year 2000:

	1945	2000
Under 10 years..	17.5%	12.5%
10-19 years	15.9	13.2
20-29 years	16.9	13.9
30-39 years	15.2	14.0
40-49 years	12.8	13.3
50-59 years	10.5	14.4
60-69 years	6.7	9.8
70 and over.....	4.3	8.8

• Still Moving—During the war, a fifth of the nation's population—12,000,000 men and women in the armed forces plus 15,000,000 civilians—found new homes, the greatest reshuffle in U. S. history. Nor is the postwar migration rate expected to settle down to prior peacetime levels. With the growth of industry in the West, the pattern of migration will be from the South—the "nursery of the U. S."—to the North, and from the North to the West.

Concurrently, the Federal Security Agency took the measure of another human phenomenon—divorces—and it found them at an all-time high. Last year 31 out of every 100 marriages founded. But marriages, too, were still at very high levels—12.3 per 1,000 of population in 1945, as against a low of 7.9 in 1932.



ANOTHER RAIL GIANT MAKES ITS DEBUT

Fanfare rivaling that accorded new model automobiles will be served up next week by American Locomotive Co. to introduce its new line of diesel-electric locomotives. Destined for delivery to Santa Fe R.R., a three-unit 6,000-hp. power plant (above) will be moved onto a siding under Manhattan's Waldorf-Astoria, the stage set for a series of parties for industry, banking, and the press. Alco asserts that the new locomotive, the 75,000th it has made since 1837, gives more power with less weight, more ton miles at higher speeds—and with lower maintenance costs. Also in the new line are a three-unit 4,500-hp. diesel for fast freight service, a single unit 1,500-hp. combination road and switching locomotive—all with equipment provided by General Electric. Through assembly line methods Alco hopes for an output of three units daily.

Capital Goods Dually Allocated

Manufacturers in that field distribute standardized items by quota, but custom-built jobs go to the first comers. In either case, old customer has advantage. Much duplication of orders is reported.

Scarcities being what they are, Business Week has surveyed manufacturers in major production centers to find out how they allocate items in short supply to their customers.

A digest of allocation systems for consumer goods appeared two weeks ago (BW—Sep. 7 '46, p.17).

Herewith is its counterpart in the capital goods field. Areas surveyed include Greater New York, Chicago, San Francisco, Los Angeles, Buffalo, Detroit, Philadelphia, Cleveland, Cincinnati, Minneapolis-St. Paul.

Because capital goods consist partly of standardized items, partly of custom-built specialties, allocation systems generally follow two distinct paths. The dual system used by Westinghouse Electric is a case in point. Here is how Vice-President R. A. Neal describes Westinghouse's share-the-goods plan:

"Distribution of standardized items like fractional horsepower motors, meters, and distribution transformers, is being prorated dependent on purchases of similar items in the period 1939-41.

Every effort is made to distribute factory output on an equitable basis—current demand viewed in the light of purchases in 1939-41.

"Distribution of special-design apparatus, like motor-generator sets, is on a first-come first-served basis. When an order for this kind of industrial equipment, that must be custom-built, is received, work on it is undertaken as soon as the factory can handle it. If two orders are for the same apparatus, the order received first will be first to be manufactured and shipped."

• **Pervading Pattern**—Almost all manufacturers allocating scarce capital goods do just about what Westinghouse does—fix quotas on standardized items; and dish out the custom-built stuff on a first-come first-served basis. It goes without saying that old customers are the only ones included in such schemes.

Surprisingly few variations have been woven around the two allocation systems. Out of scores of examples collected by Business Week, there was not a single deviation from first-come

first-served in the custom-built field. And in the allocation of more or less standard items, only two slight departures from a simple quota system turned up.

• **Jahco's Invention**—One of these was the invention of Jack & Heintz Precision Industries. Early Jahco customers are assigned low priority numbers and production is split percentagewise among them. But no reorders are accepted on the low numbers—the fortunates who got the first batch of goods must move back to the end of the line for their second batch.

There is one exception to this rule: If a customer can supply part of the scarce materials going into the product he has on order, or can tell Jahco where such materials can be obtained, he invariably gets high preference.

• **Via District Offices**—The other variation on the simple quota system was devised by both International Harvester and National Gypsum. Instead of allocating direct to old customers, these two firms allocate to their district offices. The advantage of letting the field men fan-out the merchandise lies in greater flexibility.

Are manufacturers happy about their allocation systems?

The most noticeable feeling is one of helplessness. Makers of custom-built equipment say there is no alternative whatsoever to the first-come first-served basis of allocation. Quotas are out of the question. For instance, you could hardly allocate each customer three-quarters of a locomotive.

Makers of standardized goods feel that quotas, by and large, are the best way to keep old customers in the fold.

• **Duplication of Orders**—In diametric opposition to consumer goods producers, however, the majority of capital goods producers feel that duplication of orders in their field is common. One manufacturer bluntly states that 60% of his orders are duplicated elsewhere. One requires a down payment as a damper on reordering, but is dubious whether this scheme has much effect.

Apparently the ability to build up inventories of bits and pieces in the capital goods field encourages duplication of orders, whereas in the consumer goods field the prevalence of finished stuff (over which manufacturers have tight control) makes over-ordering useless.

MINE GROUP HAILS KRUG

Secretary of the Interior J. A. Krug got a pretty hearty reception from western metal mine operators in Denver last week, and the operators' enthusiasm was inspired by more than relief over the fact they no longer had to spar with Harold L. Ickes.

Addressing the Western Division of

the American Mining Congress, Krug pledged wholehearted cooperation with private enterprise. Soldest note was his promise not to withdraw any more land from the public domain (where it is open for mining claims) without public hearings.

Eager as they are to escape federal interference, the operators are hoping that Krug's Geological Survey will pitch in and map the West more thoroughly to aid the search for minerals and to refute contentions that we have become a have-not nation.

Jewelry School

Kansas City watchmaking classes jump from 80 to 1,050 students. Veterans attracted by assurance of jobs.

Mushroom growth is a snail's pace compared to the jet-propelled expansion of the Kansas City School of Watchmaking. What was a quiet, modest technical school of 80 students a year ago has an enrollment of 1,050 this September, and applications are pouring in at the rate of 150 per month—faster than graduates go out the front door.

• **Uses Two Shifts**—Most other watchmaking schools are far behind the Kansas City School in enrollment. Some of the larger ones are operated by the Foegler Institute, Cincinnati (about 300 students), and by the big watchmakers, Elgin, Hamilton, Bulova, and others. Fewer than ten such schools in the country have enrollment of even 200, however, and the average of a score of smaller schools is 20 to 30 students.

Classes of the Kansas City school are now full, although it operates in two shifts, 8 a.m. to 2:30 p.m. and 3 p.m. to 9:30 p.m.

Responsible for the school's growth are veterans' legislation providing job training and the nationwide demand for watchmakers, jewelers, and engravers. The precision work is especially attractive to handicapped veterans.

• **Many Job Offers**—Veterans are attracted by the assurance of a job once training is completed. Present estimates list about 30,000 watchmakers in the United States, with demands for at least that many more.

Under this demand the school's big problem is to keep its students studying for the full 15 months of the basic course, as job offers begin to flow in privately to students with five to six months' training.

Another inducement is the prospect of the veteran's gaining a small business of his own within a relatively short time.



Like most educational institutions today, the Kansas City School of Watchmaking is jammed too. Veterans make up 90% of the enrollment.

Rubber Subsidy?

Steelman's directive has delayed price action. Strategic stockpile will be replenished with higher priced imports.

OPA and rubber manufacturers agreed this week that Stabilization Director John R. Steelman's directive ordering the Reconstruction Finance Corp. to keep the price of crude rubber at $22\frac{1}{2}$ ¢ a lb. at least until Jan. 1 had averted another price boost, which would have been the third this year.

• **Unlocks the Stockpile**—It also ended a two-month-old tug-of-war between RFC on one side and OPA and Civilian Production Administration on the other over whether the $3\frac{1}{2}$ ¢-a-lb. increase granted in June to British and Dutch rubber growers should be passed on to the consumer or absorbed by the government.

Steelman decided that neither should take place now. His order unlocks the nation's strategic rubber stockpile, variously estimated to contain from 150,000 to 175,000 tons. Industry's monthly allocations of natural rubber will come from this source. The "low cost" rubber was bought at $20\frac{1}{2}$ ¢ a lb., f.o.b. Far East, and sold to consumers at $22\frac{1}{2}$ ¢. The $2\frac{1}{2}$ ¢ differential covers shipping and insurance charges.

• **Defends Method**—Meanwhile the 145,000 tons of higher cost rubber the government has contracted to purchase in the last half of 1946 at $23\frac{1}{2}$ ¢, f.o.b. Far East, or $25\frac{1}{2}$ ¢ in New York, will be shunted into the stockpile to replace the stocks released to industry.

Steelman held that this would be in the nature of a "first in, first out" ac-

counting method rather than a subsidy, and that such a method is entirely consistent with recognized business practices.

At stake in these manipulations is about \$11,000,000 which is what the $3\frac{1}{2}$ ¢-a-lb. increase adds to the government's rubber bill in the last half of the year. A question still to be decided is who will eventually make up this sum—the taxpayers through a subsidy, or the consumers of finished goods through higher prices. Steelman's directive postpones this day of reckoning.

• **Cut in Synthetic?**—Industry had urged that if RFC raises the price of natural rubber to $25\frac{1}{2}$ ¢, it should lower the price of synthetic, GR-S, to 15¢ a lb. and the over-all bill to the consumer would be virtually the same. Manufacturing costs of synthetic now justify such a reduction, industrialists assert.

The $3\frac{1}{2}$ ¢ tacked on crude rubber would have boosted the costs of this raw material 15%. OPA agreed that such a hike would have justified a price increase on all finished goods containing a substantial amount of this product.

MONTOUR SALE CONCLUDED

As predicted (BW—Sep. 14 '46, p74), the small, but strategic and highly profitable Montour Railroad was sold by the Pittsburgh Consolidation Coal Co. this week. Joint purchasers were the Pennsylvania and the New York Central-controlled Pittsburgh & Lake Erie. The Youngstown & Southern Ry. also changed hands in the deal.

The sale may have been expected, but the price was definitely a surprise—only \$9,250,000 instead of the \$35,000,000 which had been predicted. In addition, the purchasers agreed to guarantee outstanding obligations of Youngstown & Southern amounting to \$750,000.

Boston Revamps Its Port

Rejuvenated board, now under state sponsorship, hopes \$15 million modernization program will help city regain former position as seaport. Use of wartime facilities will speed work.

Wartime shipping opportunities united the businessmen of Boston on an ambitious program to restore their city's position as one of the leading seaports of the world. Today, the Bostonians can point to a two-year record of accomplishment which includes:

(1) Setting up a new Port Authority, a state agency replacing the old city-state body, with power to modernize facilities.

(2) Obtaining an annual appropriation of \$500,000 for maintaining and operating port facilities, in contrast to a prewar \$50,000 a year.

(3) Obtaining a legislative appropriation of \$15,000,000 for modernization.

(4) Establishing shipping sales offices in New York and Washington to solicit business. (Another is contemplated for Chicago.)

(5) Employing Maj. Gen. C. H. Kels, former commander of the Boston and New York ports of embarkation, as director of the Port Authority.

• **Change Begins in '43**—In 50 years before the war, Boston had dropped from second to seventh among the nation's seaports. Decaying docks, out-

moded piers, and rail differentials in favor of New York and other ports seemed like hopeless handicaps. Things changed in 1943.

The government stepped in to develop one of the finest ocean terminals in the country on Castle Island at the head of the harbor. Boston business saw a rich asset in Castle Island's 4,000 ft. of dock space, berths for seven large cargo ships, 700,000 sq. ft. of shed space, and trackage for 1,000 railroad cars. Behind the docks are 100 acres suitable for modern factory sites. Several firms have already acquired tracts there.

The fact that such a terminal was to be available to the Port of Boston after the war galvanized businessmen into action. They organized the Massachusetts Committee for Port Development, and sent representatives up and down the six New England states, selling Boston as the gateway to the sea.

• **Railroad Aids Drive**—The New York, New Haven & Hartford R.R. announced that it would establish an extensive new Foreign Traffic Dept. to help bring business to Boston tidewater. The New

Haven traffic agents have been selling the port to western and midwestern shippers since 1943. Information centers have been established for potential importers and exporters concerning ship sailings, as well as other pertinent information.

The backbone of the whole drive was the legislation changing the old Boston Port Authority from a joint city and state body, to a 100% state organization. It also was transformed from a strictly advisory capacity to an administrative organization.

• **Advantages Listed**—The Port Authority, surveying its shipping potentialities, listed these selling points: nearest location of any major U.S. port to Europe; convenient location on the open ocean with no need for a long up-river haul; deepest main channel on the Atlantic Coast with open navigation all the year round; a large ship repair center in the harbor; more than 4,000 freight car spaces the use of which does not interfere with domestic or passenger trade.

Other advantages cited were a manufacturing center right in its own back yard with an annual production rate of nearly \$4,000,000,000 worth of goods; a modern airport immediately adjacent to its docks; 30 acres of deep harbor and 30 mi. of berthing space with accommodations for the largest ships afloat.

• **Facilities Run Down**—But there were many things the Boston port lacked. Pier facilities have remained practically



In promoting its vision of port development, Boston lists as assets a fine harbor, railroad and air terminals already at hand. Key spots are Castle Island and the Naval Annex (upper right), Boston & Maine R.R. docks (lower left).



Spearheading the program to restore Boston's traditional title as a great seaport are (left to right): Massachusetts' Governor Maurice J. Tobin; Jay R. Benton, chairman, Greater Boston Development Committee; and Maj. Gen. H. C. Kels, director, Port of Boston Authority.

unimproved for a quarter of a century. Designed for windjammers and small coastal ships, many of the docks were too short for freighters; traffic congestion was a considerable handicap in the port.

Sailings were infrequent, and the port was getting little business from Boston itself. Many New England merchants were shipping largely through New York.

But with the present support of the Massachusetts Committee for Port Development, Boston expects a real post-war renaissance in foreign trade. A development and modernization drive that will take at least the next decade to put through calls for:

(1) Development of Castle Island as one of the world's most modern ocean terminals. Acquired by the state on July 13, this terminal needs considerable renovating to be made commercially practical.

(2) Erection of a second modern ocean terminal along the South Boston dock area near the Naval Annex (site of demolished Hoosac docks).

(3) Construction of at least one modern pier at the Mystic Wharves of the Boston & Maine R.R. (the legislature appropriated \$4,700,000 for this purpose in 1941 subject to lease agreement).

• **Trade Zone Sought**—In the last few weeks the United States Lines have resumed fortnightly sailings from Boston direct to the United Kingdom and Irish ports. Commercial service has been re-established between Boston and Ger-

many, and the American-South African Lines has inaugurated postwar sailings to Turkish ports. But sailings must be vastly expanded to regain prewar business in competition with New York, Philadelphia, and Baltimore.

There is also a concerted effort among businessmen to create a foreign trade zone, such as that recently established in New Orleans. Castle Island would be developed as the site of this "free-port" zone.

Sharon Expands

Roemer's little empire, now tenth largest steel producer, adds another fabricating plant. Sales goal is \$100 million.

Sharon Steel Corp., already established as the nation's tenth largest steel producer through purchase of the Farrell works of Carnegie-Illinois Steel Corp., U. S. Steel subsidiary (BW-Nov. 24 '45, p32), last week added another fabricating plant in its drive to acquire outlets for its finished and semifinished steel.

• **Adds Another**—Latest addition to the little steel empire being assembled by Sharon's president, Henry Roemer, is Bopp Steel Corp., Dearborn, Mich., producing cold rolled strip, principally for the automotive industry. Bopp will take an estimated 60,000 tons of steel from Sharon.

Besides Bopp, purchased for a reported \$2,000,000, another concern, specializing on electroplating steel sheets and producing large quantities of box strapping, was said to be ready to drop into Sharon's lap for about \$1,000,000. This will account for another 36,000 tons of the parent's output.

• **Nearer Integration**—Previously in the fold were such concerns as Niles Rolling Mill Co., in which a controlling interest is owned by Sharon, taking 150,000 tons annually of its sheet bars, and Detroit Seamless Tubes Co., a wholly owned subsidiary, accounting for another 40,000 tons. Another customer in which it has a proprietary interest is Mullins Mfg. Corp., Warren, Ohio, stamping concern owned one-third by Sharon.

Deals such as these, engineered by Roemer in the 16 years he has headed the company, are bringing Sharon closer to integrated operation—although fabricating and semifabricating still fall far short of utilizing the firm's 1,686,000 ingot capacity (two-thirds of it added through acquisition of the Farrell works).

• **Career in Steel**—Roemer, a steel man who learned the business by starting as

a blast furnace helper at the age of 14, had established his reputation as an operating man when directors of the Sharon Steel Hoop Co. asked him to take charge in 1930. He found a company in bad financial straits, committed to a program of expanding stainless steel production. Roemer fired the experts who had been hired to engineer the stainless steel job, and succeeded in getting the company back on its feet in the next three years.

Then he merged Sharon's subsidiary, Youngstown Pressed Steel Co., with Mullins and came out with a one-third interest in the latter, and late in 1934 acquired a 70% interest in the Niles Rolling Mills.

When Roemer's aid was enlisted to work Pittsburgh Steel Co. out of its financial plight in 1936, he decided against merging it with Sharon, instead put his own money into the company to help get it back on its feet.

• **Aim: \$100 Million**—Last year Sharon took over Detroit Seamless Tubes, an old customer, in a deal costing the purchaser only \$162,000 net (after deduct-



TOO MANY CUSTOMERS

Loyal fans all, hordes of Bostonians jam their postoffice to mail in applications for tickets to see their favorite team—the Boston Red Sox—play the World Series. And last week in Brooklyn, the Dodgers, still battling for the National League pennant, were snowed under by ticket applications, announced the quota had been filled in a few days—indicating that the big business of the World Series is becoming steadily bigger.

14,
an
he
to
m-
ed
el
arts
he
et-
he

ry,
ith
ird
34
les

to
its
ed
ad
ny

on
an
ur-
ct-



Holiday brings you NEW YORK as New Yorkers don't know it

Where can you order a mammoth mutton chop, Bombay Duck, or the "creamiest cheesecake this side of Milwaukee"? How did Coney Island get its name? Where will you find a restored monastery . . . or Fritz Scheff, Ann Pennington, and Joe Howard?

Louis Untermeyer, top-notch writer and Manhattan celebrity, tells you in the October issue of Holiday—in a detailed 7-day tour of the town's charming, unknown corners. But this is only part of a new Holiday feature—a 17-page portfolio of pictures and articles on New York

City that will have the sophisticated scratching their heads.

The theatre is covered, too . . .

Why are Broadway producers begging their "angels" *not* to back their shows too heavily, when theatregoers are clamoring for tickets at the highest prices ever? Why couldn't "Abie's Irish Rose" last two weeks in Times Square today? Robert Sylvester, drama critic for New York's biggest newspaper, writes a knowing, behind-the-painted-scenes story that you'll be quoting to your friends!

And this New York portfolio is but a start! It's one sample of the 45 interesting features, the 160 pages of exciting Holiday reading. October Holiday is the best issue yet . . . and a taste of better ones to come!

Holiday
A CURTIS PUBLICATION

INDEPENDENCE SQUARE, PHILADELPHIA 5, PA.



"That took half-a-century!"

ACTUALLY the drawing was made in a day. The ideas, inspiration and knowledge were gained through our long years of crane building.

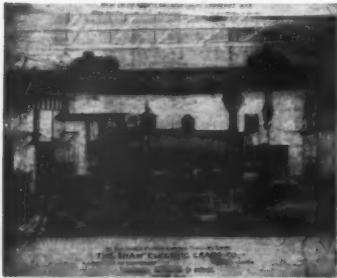
It is a unit of a Shaw-Box Electric Traveling Crane that is now being built—modern in conception and embodying the latest in metals, engineering and styling. But its fundamental qualities are as old as time. The crane will do its job efficiently with the minimum of operating and maintenance costs and the

maximum of safety, reliability, and ease of operation.

Our crane of today is the ultimate of what we can do with our background of long and rich experience. Tomorrow's cranes may be different. Look to us for all that is new and good in crane development.

Do you need a crane or several now? Give us the problem! Let us recommend the best crane or combination that is exactly suited to your job and will do it in the most efficient and economical manner.

This picture shows "Shaw" Crane No. 3, fifty-six years old and working daily, for which we still supply replacement parts. The first multi-motored electric traveling crane was designed by A. J. Shaw, the founder of the Shaw Electric Crane Company—the parent of the Shaw-Box Crane Division of Manning, Maxwell and Moore, Inc.



Send for Catalog No. 214



SHAW-BOX Cranes

MANNING, MAXWELL & MOORE, INC. • MUSKEGON, MICHIGAN

Builders of "Shaw-Box" Cranes, "Budgit" and "Load Lifter" Hoists and other lifting specialties. Makers of Ashcroft Gauges, Hancock Valves, Consolidated Safety and Relief Valves and American Industrial Instruments.

ing cash on hand and accounts receivable).

When Sharon purchased the Farrell works for \$4,250,000, Roemer's first plan was to dispose of the ancient Lowellville (Ohio) works. But the deal with four nonintegrated sheet steel makers (BW-Apr. 13 '46, p. 66) didn't come off. Now he plans to concentrate stainless and other alloy steel production there.

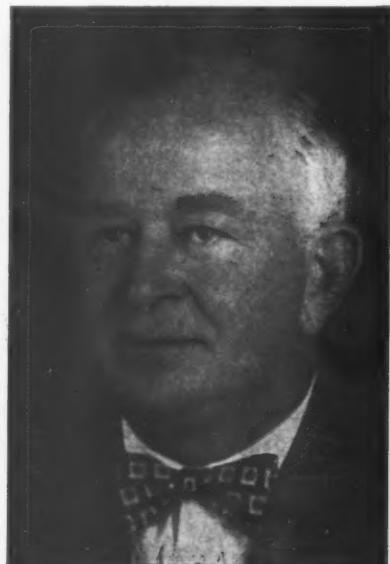
Roemer has his sights set on a \$100,000,000 sales gross, had hoped to achieve that goal this year until strikes interfered. Now he expects to do \$87,000,000 in 1946 and \$100,000,000 in 1947.

LINCOLN DEALERS LINKED

The Lincoln Division of Ford Motor Co. is making a novel use of its employee publication, designing it to serve as an organ for its dealers as well, starting with the August issue.

The center pages of the eight-page "Lincoln News" are replated after being printed for all company employees, and items of dealer interest substituted for factory news.

The first issue reported that 21 Lincoln-Mercury district headquarters have now been established throughout the country grouping about 1,000 retail outlets in six geographical regions. When the entire organization has established itself, expectations are that some \$45,000,000 will have been invested in agency showrooms and facilities.



A man of action with a brass-tacks knowledge of plant operation, Henry A. Roemer (above) in 16 years led Sharon Steel from a precarious financial spot into the group of the nation's ranking steel producers.



"He'll get there first? . . . over my dead body!"

Maybe you're right, son . . . it happens every day. Every minute, in fact . . . that's the frightful smash-up record on our highways.

And yet it's so easy to keep out of trouble, if you'll remember two things.

First, that accidents don't always happen



You can't win a law suit

If it goes against you, you may lose everything. If you "win," you'll still lose heavily in time, worry, expense. Hartford Automobile Damage Suit Insurance takes this load off your shoulders.



Who pays for collision damage to your car?

Hartford does . . . if you've been thoughtful enough to invest a few extra dollars in Hartford Collision Insurance.

to the other fellow. So drive carefully!

Secondly, that you're exposed to a wide range of risks every time you drive. Hartford's modern Automobile Insurance protects you against them. Just consider the following examples of the broad protection this low cost coverage offers you:



Don't forget this "debt of honor"

If members of your family or other people in your car are injured, you'd like to pay for their medical care. For as little as \$3 a year in most places, your Hartford policy will pay medical expenses for your guests, your family, yourself—up to \$250 per person. Larger amounts at small additional cost.



This won't do your car any good

Gas and oil fires are tough! Hartford Comprehensive Automobile Insurance protects your car from loss by fire and many other causes of damage, and by theft, too.

Do your children drive other cars?

The Damage Suit policy covering your own car can be extended to include your children when driving other cars. A dollar or so spent for this additional protection may save a loss of thousands.

Hartford Insurance

Hartford Fire Insurance Company • Hartford Accident and Indemnity Company

Hartford Live Stock Insurance Company

Writing practically all forms of insurance except personal life insurance • • Hartford 15, Conn.



HAVING NIGHTMARES over a new Tag or Label problem?



PUT IT UP TO *Dennison* AND RELAX!

O. SOGLOW

YES, shipping tags and labels can raise some tough questions. So, instead of losing sleep over them, why not do the obvious—consult Dennison first.

If you ship metals, Dennison knows the quality of tag stock that meets express requirements. Do you use bales? Dennison has a tag fastener that is ideal for them. Are your labels applied to rough wood? With our extra heavy adhesive, they really stick.

Dennison has specialized in the planning of shipping tags and labels for so many years that paying infinite attention to a host of details has become second nature. We can also show you how to make tags and labels do important extra jobs. For instance, deliver an advertising message . . . carry order or invoice reference . . . give warnings or instructions.

You can be sure your tags and labels will be correct in design and correct from a practical standpoint when you put your problem up to

Dennison

PAPER PRODUCTS THAT PRODUCE RESULTS



Dennison-developed tags and labels direct the shipments of many of the leaders of American industry. If those you now use fall short of your requirements, why not write Dennison Manufacturing Co., 803 Ford Ave., Framingham, Mass.

TAGS • LABELS • SEALS • SET-UP BOXES • MARKING SYSTEMS • PAPER SPECIALTIES

Pressure on Idlers

Unemployment compensation to veterans and nonveterans is being subjected to a tightening up in a number of states.

Many businessmen, worried about the tightening labor market (BW-Sep. 7/46, p15), have complained that membership in the 52-20 Club—their designation for those who receive veterans' unemployment aid amounting to \$20 a week for as long as 52 weeks of unemployment—has held down the number of workers available for unfilled jobs.

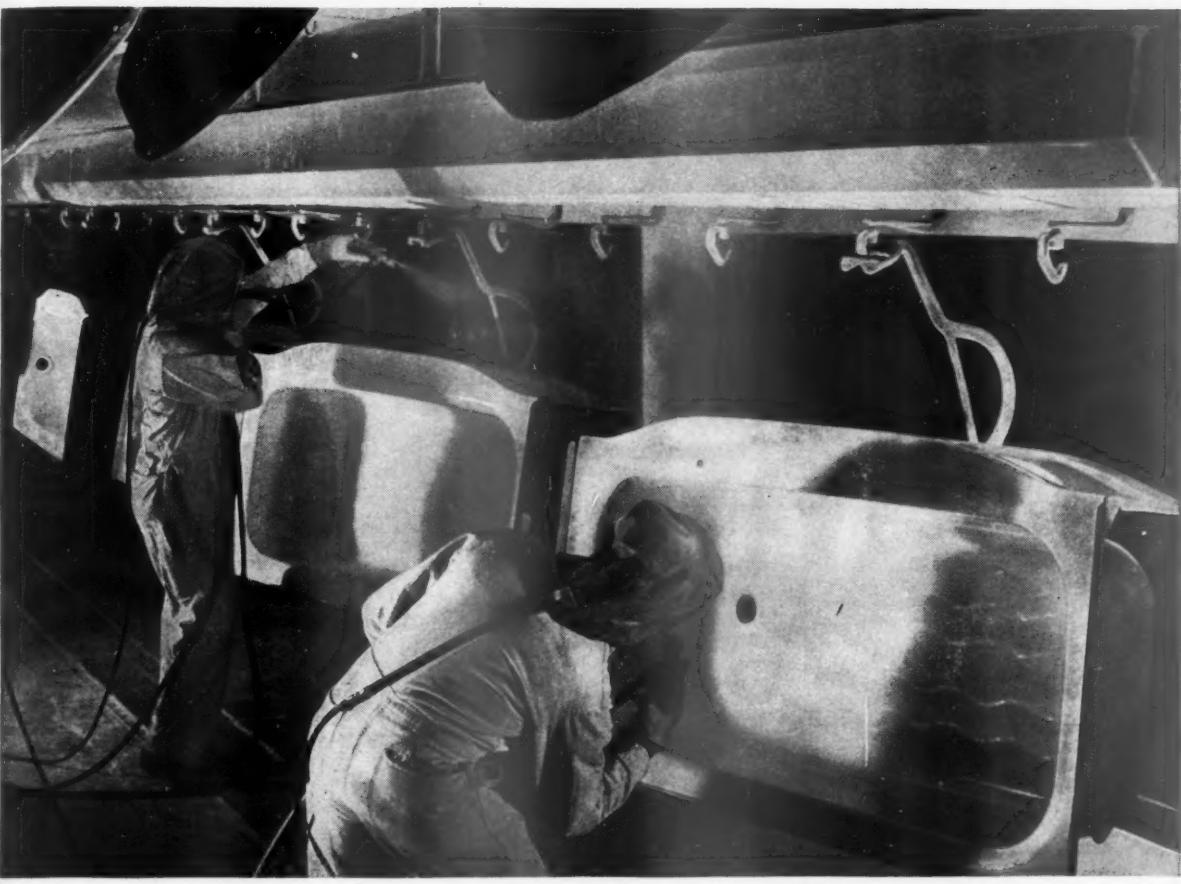
This complaint, along with widespread criticism of nonveteran unemployment compensation policies, this week brought action in Colorado, Tennessee, Alabama, and Georgia. The common objective was a general tightening of benefit policies.

• **Strikers Benefit**—At the same time, a referee of the Michigan Unemployment Compensation Commission ruled that benefits are not necessarily barred to all workers of a strikebound plant. The referee decided that most employees of the Frost Gear & Forge Division of the Clark Equipment Co., Jackson, Mich., were eligible for unemployment aid during an eight-week strike last year.

The decision was contrary to precedent in Michigan and elsewhere, which had been that if employees of one department struck, forcing an entire plant to close, all employees became ineligible.



Back in his job as Colorado unemployment compensation director, former Navy Lt. Bernard E. Teets hopes to trim deadwood from his relief rolls.



Bathing beauties get their glamour

Perhaps your company is seeking to add lasting sales-glamour to a metal product. If so, this picture has special interest for you.

Here, smart-looking Formed Iron bathtubs are being sprayed with a fluid mineral coating. Afterwards, the coating will be solidly fused to the special iron base under tremendous furnace heat. The tubs come out of the furnace with the hard, lustrous porcelain enameled finish that laughs at wear and keeps its good looks for years.

Whether you make bathtubs, ranges, refrigerators, cooking ware, or a host of other products, the extra beauty and durability of a porcelainized finish helps assure continuing good-will for your brand name. Many leading manufacturers use

ARMCO Enameling Iron for the metal base. This was the first special enameling iron — originally developed by Armco and constantly improved. It insures a tenacious bond between the porcelain enamel and the metal . . . and a smooth, glossy finish. Today, ARMCO Enameling Iron is the most widely used material for this exacting purpose.

This special-purpose sheet metal is typical of the many contributions that have made Armco the leader in its field. Armco research men are always concentrating on the important job of developing more useful steels for home, farm, and industry. The American Rolling Mill Company, 4101 Curtis Street, Middletown, Ohio. Export: The Armco International Corporation.



THE AMERICAN ROLLING MILL COMPANY

• SPECIAL-PURPOSE SHEET STEELS

• STAINLESS STEEL SHEETS, BARS AND WIRE

ers
ensa-
rans
tent-
s.

about
—Sep.
mem-
desig-
erans'
\$20 a
inem
umber
bs.
wide-
inem-
this
Ten-
The
tight-

me, a
ment
that
to all
The
rees of
of the
Mich.,
l dur-

prece-
which
e de-
plant
eligi-

1946



That huge backlog of savings that was going to keep the American people buying everything and anything... and for years... is nothing but a myth! So says the Federal Reserve Board after a nation-wide survey:

Of the \$81 billions in accumulated wartime wealth, \$50 billions is owned by 10% of the people. The next 20% of the people have \$22 billions. The remaining 70%... upon whom the nation's real buying power depends... have the relatively small balance to split among themselves, with a quarter of these without any savings whatever.

Now this isn't dangerous (unless you happen to be among that group with no savings!) But it does mean that people are largely going to be buying out of current income, that they won't be throwing their money away... that American business will have to get out and sell in the good old way again.

And no matter what you make or sell, that means you'll have to deliver better performance, better styling, and more value for less money than your competitor. Monsanto believes that one of the best and most certain ways to accomplish this is with plastics, intelligently applied. Our versatile family of modern plastics and our plastics technicians stand ready to help you. Write, wire or phone: MONSANTO CHEMICAL COMPANY, Plastics Division, Springfield 2, Mass., In Canada, Monsanto Ltd., Montreal, Toronto, Vancouver.



ble for benefits. Reasoning was that all employees presumably would be interested in—and conceivably would share—any gains won.

• **Greasy Floors**—In the Frost Gear & Forge case, however, the referee held that the cause of the strike—greasy floors—was not common to all departments; hence other employees could not gain from a victory.

Colorado's unemployment compensation director, Bernard E. Teets, who served two years as a naval lieutenant commanding an LST, ordered tighter controls on benefits after receiving a report that 5,000 job openings (mostly in the low-pay brackets) could not be filled although 6,607 veterans and 2,830 nonveterans were receiving unemployment compensation.

• **Shut-Off Provisions**—Teets ordered (1) that veterans be paid their \$20 checks for four weeks, without question, while they seek employment at their highest skill, but that after that period rejection of any job offered through the state or U. S. Employment Service would bring suspension of payments for from five to 13 weeks; and (2) that nonveteran payments of \$15 a week would be shut off for up to 16 weeks for anyone who refused a job.

The Board of Review of the Tennessee State Employment Security Department barred compensation to strikers who do picket duty.

Georgia's compensation officers were urged to do a more careful screening job on applicants for benefits, and to attempt to direct them into job openings.

• **Burden of Proof**—The Alabama State Dept. of Industrial Relations announced that applicants for benefits would be re-

quired to prove they had made "a conscientious and diligent search for work"—through affidavits or letters from possible employers after job interviews—before they become eligible each week for checks.

In the past, registration with USES was the only requirement.

Barge Problem

Wallace wanted to dispose of Inland Waterways Corp. but shippers balked. Now new chief hopes to renovate river lines.

Henry Wallace wanted to get the government out of business, but the businessmen wouldn't let him. At least, he wanted to get out of the barge business. And the indications are that he won't be able to.

Inland Waterways Corp., the federal government's profitless, down-at-the-heel Mississippi barge line, came to a turning of the ways this year. It's been losing money since 1939. Most of its equipment is about 15 years old, much of it long overdue on the scrap heap. It faces a tough labor relations problem in bringing its pay scales into line with the requirements of the new government corporations law.

• **Report Not Released**—Wallace and his Commerce Dept. advisers were convinced that the line could be made to pay—if the management were livened up, the equipment modernized, and labor relations put on a more efficient basis. They confirmed their views by



CHANGE OF ATTITUDE: COME IN AND SIT DOWN

Until recently the railroads were obliged to ask "Is this trip necessary?" and to plead with people who decided it wasn't to please stay at home. A Santa Fe poster (above) indicates things are different nowadays as military demands wane and competition waxes. New keynote: Plenty of seats—in chaircars.

con.
work"
rom
news
week
SES

ose
but
chief
s.

the
the
least,
charge
that

ederal
-heel
rning
osing
quip-
of it
faces
pring-
ne re-
t cor-

and
e con-
de to
vened
and
sident
ws by

" and
Santa
mands
aircars.

1, 1946

*So
pro*

Solid Quality

Solid Durability



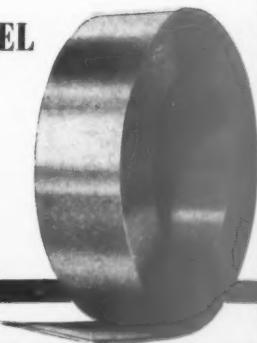
... in modern moldings fabricated of

Stainless moldings, economically produced in volume with Superior Stainless Strip Steel, provide protection with beauty, brilliance and permanence.

Choose SUPERIOR for your moldings fabrication, and get the benefits of easier handling through precision composition, exact temper, uniform dimensions and long coil lengths in the right grades for the job!

Superior

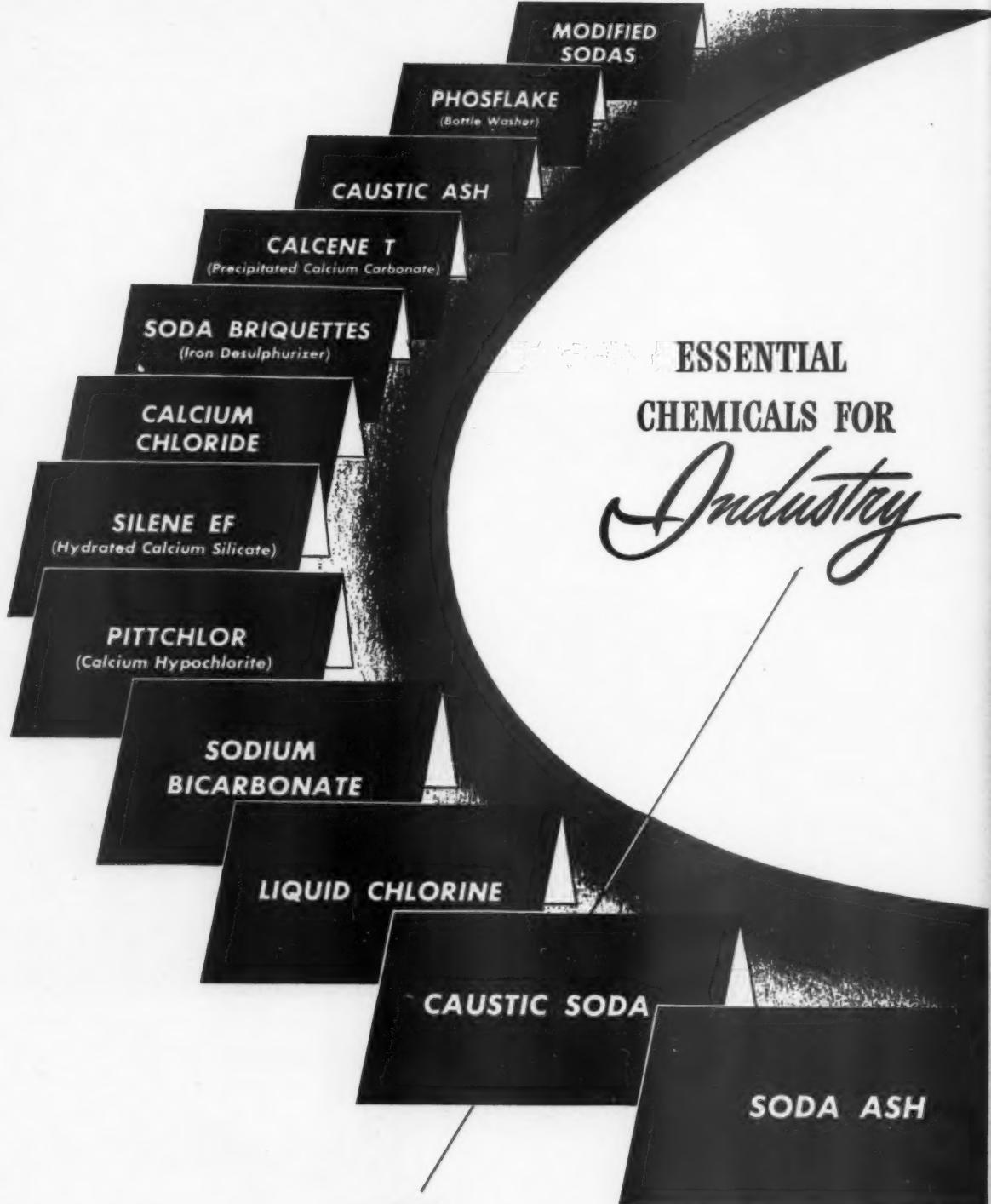
STAINLESS STRIP STEEL



SUPERIOR STEEL CORPORATION
CARNEGIE, PENNSYLVANIA

ESSENTIAL
CHEMICALS FOR

Industry



COLUMBIA CHEMICALS

PITTSBURGH PLATE GLASS COMPANY
COLUMBIA CHEMICAL DIVISION

FIFTH AVENUE at BELLEVILLE • PITTSBURGH 13, PA.

CHICAGO • BOSTON • ST. LOUIS • PITTSBURGH • NEW YORK • CINCINNATI • CLEVELAND
PHILADELPHIA • MINNEAPOLIS • CHARLOTTE • SAN FRANCISCO

ret
of
stu
up
str
com
a g
mi
aw
up
to

spe
bu
in
ov
• S
the
ha
sho
er'
sai
in
ca
me
tw
an
ow

A

IN
A
st
re
he
of
G
of
m
re
co
ha
T
Bu

retaining the Trundle Engineering Co. of Cleveland to make an independent study of the barge line. Trundle came up with a report which laid too much stress on featherbedding features in the corporation's union contracts to make a good public document from the Administration's viewpoint (it's still tucked away in Wallace's desk), but it backed up the official belief that the line ought to pay.

One of two things could be done—spend \$10,000,000 to \$12,000,000 building up the line to a paying basis in government hands, or sell it and turn over the responsibility to private capital. • Several Nibbles—Wallace preferred the latter policy. Congressional intent has always been that the corporation should eventually be sold. From a buyer's point of view there's much to be said for dealing now at the low point in the corporation's history, when it can be picked up at a figure the government regards as cheap—somewhere between \$5,000,000 and \$15,000,000—and rehabilitated in line with the new owner's ideas.

A number of buyers were interested. A New York syndicate, the Prudential



INFORMATION, PLEASE

Advice from the business community still is being sought by Treasury Secretary John W. Snyder. This week he took counsel from representatives of the life insurance trade, headed by George L. Harrison (above), president of New York Life. Snyder heard many of the same suggestions that he received in earlier conferences with commercial bankers, notably: "Let's have fewer short-term, low-interest Treasury issues, more long ones."



KEEP UP YOUR
"light-Morale"
...BY KEEPING FLUORESCENTS BLINK-FREE!

Employees get a lift when new fluorescent lighting goes in. Improved working conditions mean increased production.

But you lose all the gains of high "light-morale" when a lamp that's outlived its span starts blinking. The continual ON-OFF, ON-OFF sets nerves on edge, makes good seeing difficult.

Today, there's no need to put up with lamps that continue to blink or flicker overhead. The G-E Watch Dog* starter "stops 'em cold," as soon as their useful life ends. What's more, Watch Dogs protect the ballasts and cut starter replacement costs. Relamping is no longer an emergency matter.

The G-E Watch Dog is a fluorescent starter with a built-in cutout that takes failing lamps off the line. A push button resets it when you relamp. Many fluorescent users are replacing all their starters with Watch Dogs, and are specifying them on all new fixtures.

Watch Dogs are only one of the complete line of accessories which G-E makes, to help you make the most of fluorescent lighting. Better check with your lighting contractor or supplier to make sure that the fixtures you buy and the lighting systems you operate are G-E equipped *all the way through*.

For full information on G-E starters, lampholders, and other accessories, write Section G18-9102, Appliance and Merchandise Department, General Electric Company, Bridgeport 2, Connecticut.

*Trade-mark Reg. U. S. Pat. Off.



GENERAL  ELECTRIC

**ANOTHER
HOUGHTON SERVICE**

When defense manufacturing first began Houghton realized its wealth of metal-working data, accumulated over seventy-odd years, should be made available to men called on to process munitions.

We then began publication of an illustrated "magazine section" of The Houghton LINE, our house publication nationally known since 1908. This supplement was widely read and quoted...another service rendered by this concern which has long supplied metal processing products to American industry.

Your problem today can be ours, if you'll pass it along. On machining, heat treating, drawing metals, carburizing, lubricating or packing, you'll find helpful aid here, plus a nation-wide service organization equipped to render personal plant service.

E. F. HOUGHTON & CO.
303 W. Lehigh Ave., Phila 33, Pa.



It is good Management to help people protect the things they care about

The welfare of a man's family, how well he can provide for them, how certain he can feel about their security are all things that affect his working efficiency. Realizing this, progressive management in many organizations helps employees safeguard their earning power through Connecticut General's Protected Pay Envelope plan of comprehensive Group insurance protection.

LIFE ACCIDENT AND HEALTH - GROUP INSURANCE ANNUITIES

CONNECTICUT GENERAL
LIFE INSURANCE COMPANY
Hartford, Connecticut



SAVANT BOOSTER

In line with the expanded technical service being offered to chamber of commerce memberships, the Chicago Chamber of Commerce will soon have an economic brain trust of its own. Charles O. Hardy (above), vice-president of the Federal Reserve Bank of Kansas City, specialist in monetary policy and taxation, and author, will become the C. of C.'s economist on Oct. 1. From 1924 to 1941 Dr. Hardy was with Brookings Institution's Institute of Economics; for the two years following he was on loan to the Alien Property Custodian as adviser.

Life Insurance Co., and four or five other concerns all made tentative nibbles.

But there was an obstacle. Present law forbids a sale until the Interstate Commerce Commission evaluates the property and until it completes a study, under way since 1934, of joint rail-water class freight rates. Effect of the study might be to increase the present 5% to 20% differential in favor of the water haul or, if ICC listens to the railways, to wipe out the differential. These ICC actions could take years.

- **Shippers Protest**—So last spring Wallace asked Congress for unconditional authority to sell the lines. The proposal stirred up a hornet's nest among Mississippi Valley shippers. The federal line provides one of the few scheduled common carrier services on the river. Shippers feared that a sale might upset this.

Result was that the Interstate Commerce Committee took no action on the legislation; and when Wallace sang



Here you see "Old Man River"

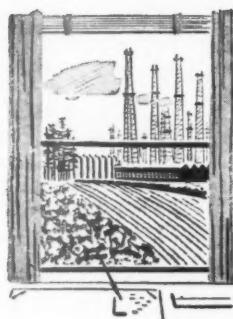
It's a new river these days...with barge lines providing New Orleans' industries with low cost transportation to and from all points in the rich Mississippi Valley. In addition, 7 major air lines, (plus air-freight lines), 11 Class 1 railroads, motor truck lines, and steamship sailings to all the world give you the most efficient transportation for your business.

THE VIEW IS MAGNIFICENT from your plant in Greater New Orleans



Beyond the Southern Horizon--Latin America

Nations to the south are increasingly valuable as consumers. Their businessmen like to trade with New Orleans, which shares their Latin traditions. To strengthen ties with Latin America and expanding markets throughout the world, our International House and International Trade Mart provide unique facilities. Remember too—New Orleans is your gateway to sales in the Mississippi Valley—greatest settled valley in the world, with 51% of the nation's population.



In This Direction-- Abundant Raw Products

Near New Orleans are abundant industrial raw materials—petroleum and natural gas, some of the world's largest sulphur and salt deposits, limestone, lignite, and other minerals. Nearby, over a billion board feet of lumber is cut annually. And this area's agricultural products—sugar cane, rice, sweet potatoes, cotton, tung, soy beans—have chemurgic value for newest manufactured products.

JUST ANNOUNCED: Department of Commerce grants Foreign Trade Zone to New Orleans—second in the nation. Every manufacturer, Importer, and exporter will appreciate the value of this great stimulus to foreign and domestic trade.

YOU ARE INVITED...to write for full, confidential information specifically applicable to your business and to location of your plant here. Address N. O. Assn. of Commerce, or **GREATER NEW ORLEANS, INC., NEW ORLEANS, LA.**

Greater New Orleans

Gives Your Plant the 3 Essentials for Profit—

MARKETS
TRANSPORT
RESOURCES



● Ideas and more ideas—over 150 of them in each issue of Household. Ideas on clothing, housing, child care...ideas on every subject important to more than 2,000,000 families in America's big (it accounts for 66% of all non-farm single family dwellings) small city and town home market.

Do these ideas get results? Just ask the advertiser who was snowed under by a 55,000-coupon response to his four-color Household ad.

Yes, if it's America's small city and town market you want to sell... Household is your magazine.

HOUSEHOLD

A MAGAZINE OF ACTION *Streamlined*
FOR SMALL CITIES AND TOWNS
CAPPER PUBLICATIONS, INC.

the same song to the House Appropriations Committee its members flatly told him—no sale. Instead, Congress approved an initial expenditure of \$2,600,000 for new equipment and told Wallace to put the line in shape before he thought about selling.

● **New Barge Chief**—This week, therefore, Wallace named a new president of the corporation. Appointment of Albert C. Ingersoll, Jr., put the corporation for the first time in the hands of an experienced barge man. Until last June, when he became vice-president of Inland Waterways, Ingersoll was assistant general manager of the family barge line, Central Barge Co. of Chicago. He's a licensed river pilot, a graduate of the Merchant Marine Academy and of Annapolis.

Ingersoll takes over an operation with a long history. It started in World War I when the Federal Railroad Administration was trying to use water hauls to relieve the rails. There was then considerable barge traffic on the Ohio, but Mississippi traffic had practically disappeared. So the railroad administration started its own barge line. When the railroad administration went out of business in 1920, the barge line was turned over to the War Dept., which got it set up as a \$15,000,000 corpora-

tion in 1924 to save going to Congress for annual appropriations. In 1939, the corporation was turned over to Commerce Dept.

● **Wartime Losses**—Through 1938, the corporation made money—an operating profit of more than a million in that year. But the European war put it on the rocks by cutting down on the foreign grain trade which provided the downriver barge traffic. That's never been reestablished (this year's relief program was in too much of a hurry to use barges), and the result has been an unbalanced and expensive operation.

Too, the corporation failed to grab its share of the wartime traffic; while tonnage on the river nearly doubled during the war, the corporation never equaled its 1938 record.

● **Wage Problem**—High on Ingersoll's agenda are three projects:

He's got to scale down wages. The federal corporations law limits his white-collar salaries to the civil service scale, and his boatmen—organized in the National Maritime Union and other unions—must be cut down to the rates prevailing on commercial barge lines.

Ingersoll has ideas about new equipment. He wants to experiment with new types, such as refrigerated barges.

He wants to extend the service far-

Custom Canning Idea Proves Popular

A Philadelphia hardwood floor artisans' depression-born idea of a cannery to cater to home gardeners has blossomed into a business that is expected to gross \$37,500 this year.

Merwyn H. Riggins conceived the plan in 1933 after noticing that even stately residences in the famous Main Line suburban area were being flanked by vegetable gardens.

● **Volume Expands**—He offered custom canning at his plant; his clients were guaranteed no spoilage, elimination of kitchen drudgery, at no more cost than home preserving. Before long, station wagons, chauffeur-driven limousines, and virtually every other type of conveyance lined up at his plant. The volume of business forced two moves to larger quarters, and the present frame building on West Chester Pike, 18 mi. from the western boundary of Philadelphia, is expected to be discarded next year in favor of a new and still bigger one in West Chester, Pa.

The custom cannery is not intended to compete with the large commercial houses. A small gardener's half basket of tomatoes is just as welcome as another grower's 150. Rates are uniform: 10¢ for No. 2 (1½

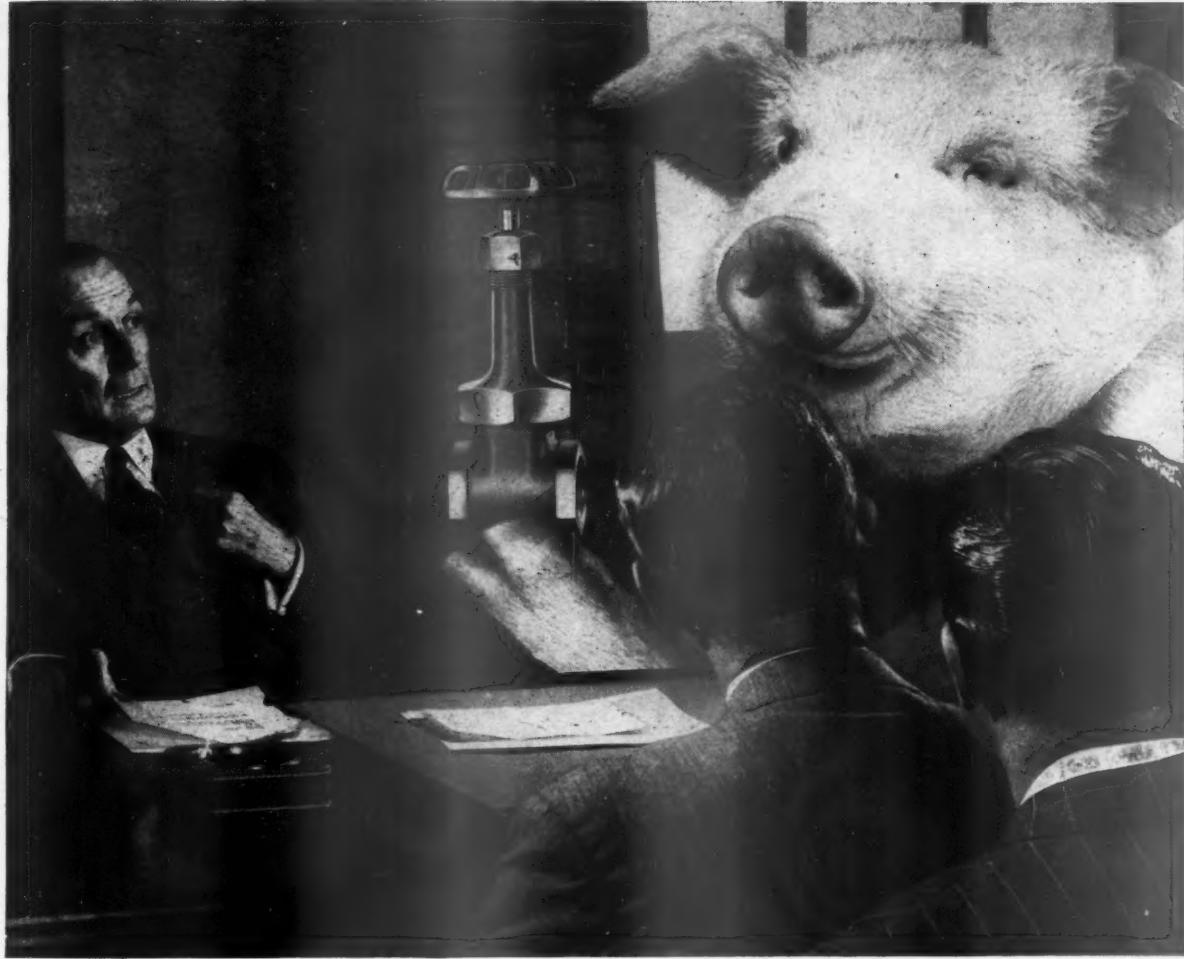
pt.) cans of solid pack tomatoes and corn, 8¢ for tomato juice, lima and snap beans.

Riggins depends upon word-of-mouth propagation. His 1,500 customers include famous Philadelphia families; the two biggest accounts are the Glen Mills Reformatory and Sleighton Farm for Girls.

● **Peak This Year**—The first year a total of 1,900 cans were processed. Business nearly doubled every year until OPA restricted the number of cans to the size of the family. Thus, even with the influx of Victory gardeners, business gained little until this year when output is expected to reach an all-time peak of 375,000 cans.

Capacity of the present plant, which is operated by three members of Riggins' family and eleven other employees, is 10,000 cans of tomato juice per day, or 3,000 cans of tomatoes. Largest volume is packed tomatoes, followed by tomato juice, corn, and applesauce.

During the war mothers and wives of men serving overseas came to Riggins with cookies, candy, spaghetti and meatballs, sausage, chicken, and a wide variety of other edibles.



"They Can Hamstring Your Budget, Gentlemen!

... and rising maintenance costs will prove it!"

WHEN WAGE LEVELS and material costs weren't skyrocketing like they're doing today, the cost of valve maintenance wasn't so important . . .

Your engineers could specify almost any valves, and nurse them through years of service, without you being much out of pocket. But now that high wage levels bid fair to make maintenance costs outstrip original plant investment, you'll be wise to see that they specify the very finest valves to be had — Jenkins Valves!

For, if you will multiply the cost of maintenance of a single inferior valve, by the thousands of valves in the average plant, you will see how the operating

budget of a non-alert management can well be hamstrung.

Have your engineers specify Jenkins Valves, and replace with Jenkins Valves, and you will be assured of the most dependable operation at the lowest possible cost — not only for a few years, but for many years to come. Superior quality of

materials, craftsmanship, and design have made Jenkins Valves famous for long, trouble-free service.

Plant after plant can attest to this fact. *Sold Through Reliable Industrial Distributors Everywhere.*

Jenkins Bros., 80 White Street, New York 13; Bridgeport; Atlanta; Boston; Philadelphia; Chicago. Jenkins Bros., Ltd., Montreal; London, England.

LOOK FOR THIS  DIAMOND MARK

SINCE
Jenkins Bros. 1864

JENKINS VALVES

For every Industrial, Engineering, Marine, and Plumbing-Heating Service . . . In Bronze, Iron, Cast Steel and Corrosion-resisting Alloys . . . 125 to 600 lbs. pressure





"Shock Absorbers"

For the raging lightning of electrical energy that floods through the high lines, huge, glassy insulators act as "shock absorbers."

So, too, in the transmission of power, Twin Disc Hydraulic Drives "insulate" machinery and equipment against mechanical shock . . . make possible smooth, controlled delivery of power.

For more than 28 years, *doing it right* has been a watchword of the Twin Disc Clutch Company. That's why you can be sure Twin Disc Friction Clutches and Hydraulic Drives

are *right*—in design, in construction, in application. That's the reason, too, why so many leading manufacturers standardize on Twin Disc Clutches, Hydraulic Couplings, Hydraulic Torque Converters.

If you build or use powered industrial equipment requiring a connecting, controlling link between driving and driven units, it will pay you to get full information on Twin Disc Clutches and Hydraulic Drives. Write today!

TWIN DISC CLUTCH COMPANY
Racine, Wisconsin
Hydraulic Division, Rockford, Illinois



TWIN DISC
CLUTCHES AND HYDRAULIC DRIVES
REG. U. S. PAT. OFF.

Reduction Gear



Hydraulic Torque Converter



Machine Tool Clutch



SPECIALISTS IN INDUSTRIAL CLUTCHES SINCE 1918

ther up the Missouri. Survey runs above Kansas City are now under way and will be pushed forward. In the back of Ingersoll's mind is some traffic development on the Tennessee River (canalized by the Tennessee Valley Authority) provided he can get a congressional waiver on the present statutory prohibition on operating on the Ohio River.

Utilities Upheld

Retroactive rate-setting aimed at giving excess profits to consumer rather than tax collector loses in Michigan.

Utilities rejoiced this week after a ruling by the Michigan supreme court which forbade the state Public Service Commission from setting rates retroactively, after earnings for the year have been figured and reported.

The commission attempted retroactive rate-setting in 1943, in an effort to give customers money which otherwise would have gone to the federal government in excess-profits taxes (BW—Feb. 17 '45, p 46).

- **Opposed Viewpoints**—At the end of each year, the commission looked over utility earnings statements, then ordered refunds to customers in approximately



POCKETS TO HOLD AIR

Waffled with a patchwork of pockets, United States Rubber Co.'s new inner tube (above) aims to reduce the speed of deflation so that a driver with a punctured tire need not be stranded even if he is some distance from help. The extra butyl rubber in the pocket crowds around the hole to slow up the escaping air. The "Royal Air Guard" will be marketed when OPA O.K.'s the price.

above
y and
ack of
develop-
canal
military
sional
obhibi-
ver.

etting
profits
tax

after a
court
Service
etroac-
er have

etroac-
ort to
otherwise
movem-
—Feb.

end of
d over
ordered
ately



ockets,
new in-
ce the
driver
not be
stance
ber in
e hole
The
marketed



YOUNG OR OLD, you'll enjoy this quiz. You may find that your car's cooling system is more complicated than you think! If you don't take care of it, it can be costly, too!

1 The heat a modern automobile generates, under normal driving conditions, is enough to warm (a) a 5-room house on a winter day, (b) a pot of coffee, (c) the cabin of a 30-foot boat.

3 Grease in the radiator forms a jelly-like emulsion that (a) flows freely along with the water, (b) helps lubricate cooling system passages, (c) hampers radiator circulation.

4 The greatest amount of anti-freeze is lost by (a) leakage, (b) oxygen in the water, (c) evaporation.

2 A neglected cooling system can damage vital engine parts but (a) has no effect on gas consumption, (b) actually generates more power from increased heat, (c) helps eat up gas.

5 Scale and corrosion develop fastest in the cooling system at a driving speed of (a) 45 m.p.h., (b) 15 m.p.h., (c) 33 m.p.h.

Car care begins up front with Nor'way®
Radiator Products—Nor'way Cleaner, Nor'way
Quick Flush, Nor'way Stop Leak. Have your
dealer Nor'way-condition your radiator
against rust, scale, corrosion, and leaks
before winter for positive protection all-winter
with these fine CSC products.

©Reg. U. S. Pat. Off.



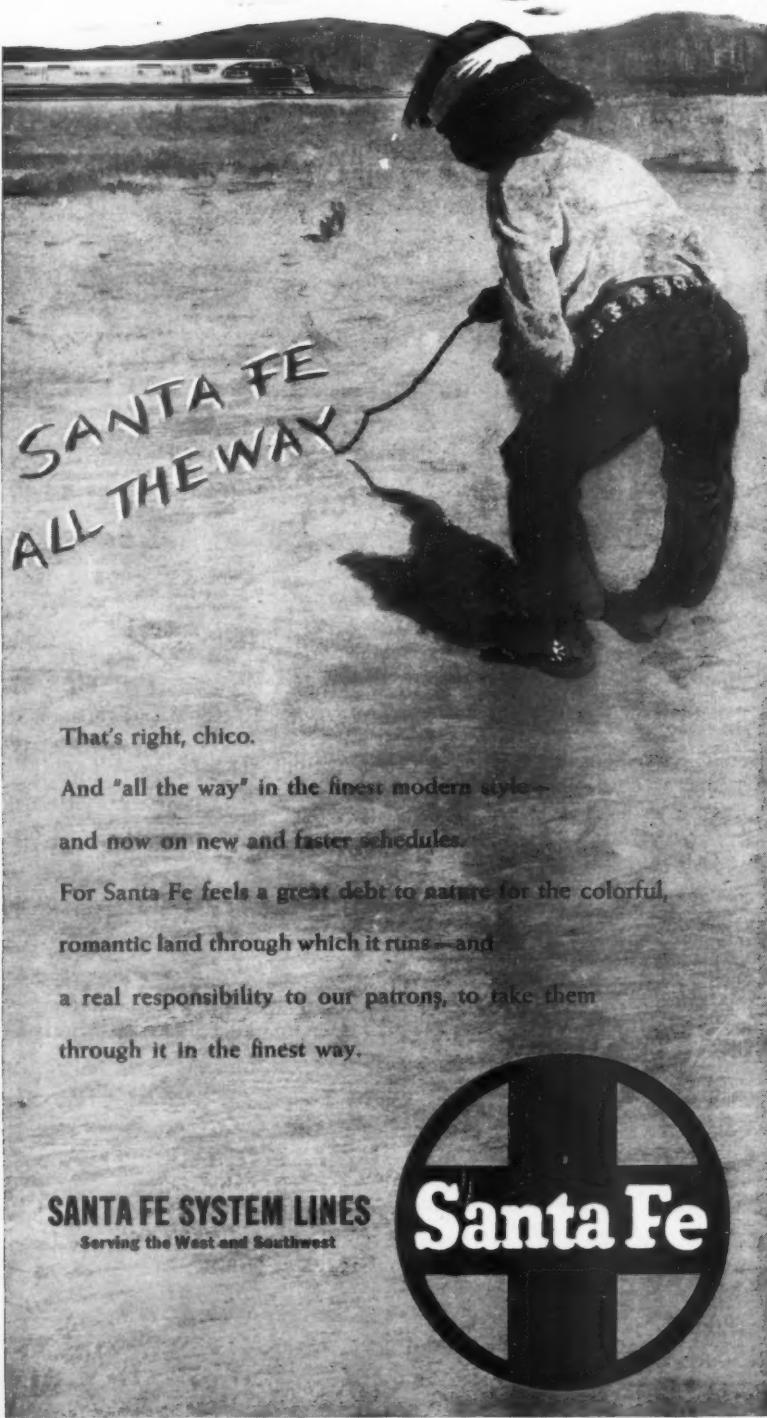
Correct Answers:
1-a, 2-c, 3-c,
4-a, 5-a

Specialties Division
COMMERCIAL SOLVENTS
Corporation

17 East 42nd Street, New York 17, N.Y.

Santa Fe

...to the colorful Southwest



That's right, chico.

And "all the way" in the finest modern style—

and now on new and faster schedules.

For Santa Fe feels a great debt to nature for the colorful,

romantic land through which it runs—and

a real responsibility to our patrons, to take them

through it in the finest way.

SANTA FE SYSTEM LINES
Serving the West and Southwest



the amounts that were to be paid out as excess profits. The commission's position was that net incomes which resulted in excess-profits payments were not reasonable, and should be prorated back to customers.

Michigan utilities fought this policy in the courts. They viewed it as a dangerous precedent—one which would establish the power of the commission to set rate structure, then change its mind if the companies made more money than was later deemed justified.

A number of court cases were instituted. This month the Michigan supreme court ruled that the Michigan Bell Telephone Co. was not obliged to pay a \$3,500,000 rebate to its customers on their 1944 bills. The court held it was not good policy to fix a rate, then penalize the company if it netted income beyond what the commission figured was a fair return.

• **Results of Ruling**—The ruling is expected to nullify the order for another \$3,500,000 in refunds served on Michigan Bell at the end of 1945, and also to invalidate refund orders directed at other utilities. But the judicial delay provided a break for customers of several utilities which already had refunded millions of dollars to their customers.



NEW VINTAGE

Unloading of Algerian wine—a French staple—at the war-recovered port of Bordeaux serves to point up France's partial economic recovery and the reinstitution of the nation's familiar trade patterns. Harried by inflation and labor unrest, shortage-ridden France is leaning heavily on Algiers' farm produce to offset the greatest shortage of all—food.

Jim Smith's Son COST JIM'S EMPLOYER

\$4,109 16



Jim Smith's son was born last week. He cost Jim's employer over \$4,000.

Jim has had pretty heavy expenses lately. His little girl was taken to the hospital three months ago for an emergency operation. Now, the baby. Jim has worried a lot about the doctor and hospital bills.

Yesterday he had an accident, because his mind wasn't on his work.

Workmen's compensation insurance will pay Jim's doctor and hospital bills. It will pay his weekly compensation benefits. But it will not pay him for his suffering. Nor will it pay for the damage to the machine or the material spoiled. That will cost his employer \$4,109.16—which does not include the time lost by dozens of other men who saw the accident, stopped to talk about it, and will worry about it for days afterwards.

Employers Mutuals write:

Public Liability . . . Automobile . . . Plate Glass . . . Burglary . . . Workmen's Compensation . . . Fidelity Bonds . . . Group Health, Accident, Hospitalization . . . and other casualty insurance . . . Fire . . . Tornado . . . Extended Coverage . . . Inland Marine . . . and allied lines of insurance. All policies are nonassessable.

Branch offices in principal cities. Consult your local telephone directory.

This Complete 24-Hour Protection Provides Peace of Mind for Your Employees

To supplement your workmen's compensation insurance, Employers Mutuals of Wausau provide for complete 24-hour protection for employees and their families through Group Health, Accident, and Hospitalization insurance.

This plan can be tailored to your requirements. It can give varying degrees of protection to various types of workers, as desired. It assures you, and your employees, that they are protected—on or off the job, for 24 hours a day—freed from worry about medical, surgical, and hospital bills for themselves and their dependents.

Peace of mind is the greatest single contribution you can make toward the efficiency of your employees. With it, they work better and produce more; the accident rate drops, and with it the cost of your other insurance.

Investigate this plan now. Call the nearest Employers Mutuals office, or write Insurance Information

Bureau, Employers Mutuals of Wausau, Wausau, Wisconsin.

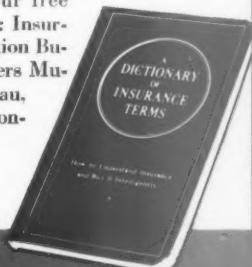
HOW Employers Mutuals of Wausau Make Insurance Understandable

Because of the serious loss that may arise from lack of understanding, Employers Mutuals endeavor to make insurance understandable, through:

. . . representatives trained to help the buyer understand his insurance;
. . . insurance survey service, which provides policyholders with an analysis of their insurance coverage—what they have, and what they need for full protection;

. . . an advertising program dedicated to giving information about insurance;

. . . A Dictionary of Insurance Terms—How to Understand Insurance and Buy It Intelligently. Over 200 words and phrases defined in simple ABC English with examples of specific applications. Write for your free copy. Address: Insurance Information Bureau, Employers Mutuals of Wausau, Wausau, Wisconsin.



make Insurance Understandable

EMPLOYERS MUTUAL LIABILITY INSURANCE COMPANY OF WISCONSIN

EMPLOYERS MUTUAL FIRE INSURANCE COMPANY

Home Office: WAUSAU, WISCONSIN



Here's a Profit Leak you can stop - fast!



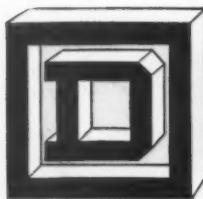
● This profit leak can cost you plenty. It's *inefficiency in electrical distribution and control*—wasting time and electricity, manpower and money.

During recent years, thousands of electrical systems have been operating under abnormal stress. They have become overloaded and unreliable . . . poorly located or improperly applied in relation to present

needs. Under such conditions, serious production losses are a certainty.

Check with your head electrical man. If he sees potential profit leaks, a Square D Field Engineer will (without obligation) work with him in plugging them.

Square D Field Engineer counsel is available through Square D offices in 50 principal U. S. and Canadian cities.



Wherever electricity is distributed and controlled

SQUARE D COMPANY

DETROIT

MILWAUKEE

LOS ANGELES

AUTOMOTIVE

Auto Makers Plan for '47

New models are now assured, but it will be largely a matter of face lifting during brief shutdowns. Ford and G.M. drop plans for light car because of basic metal shortages.

After contemplating the probable effects of continued shortages of basic materials, the prospects of higher wages, rising prices, and the uncertainties of what will happen on the stock market, the automotive industry last week announced that:

(1) It will keep a stiff upper lip amidst its adversities and bring out some 1947 models after all. This is an about-face on an earlier policy which called for no new models next year, though in reality the "new models" will probably be such largely in advertising campaign. Sweeping design changes and a thorough retooling are out of the question.

(2) More dramatically, Ford and General Motors decided to stop all work abruptly on their new light car projects, and will not bring out any restyled, reduced-priced jobs next fall as previously expected (BW—Apr. 20'46, p16).

• Not Enough Steel—G.M. attributed its change of mind on the light car, which had already been named the "Chevrolet Fifty," to current shortages of lead, copper, pig iron, and flat rolled steel (BW—Aug. 31'46, p21), and to "uncertainty as to when they will be available in sufficient quantities to carry the schedules for the models already in production." Ford said simply that

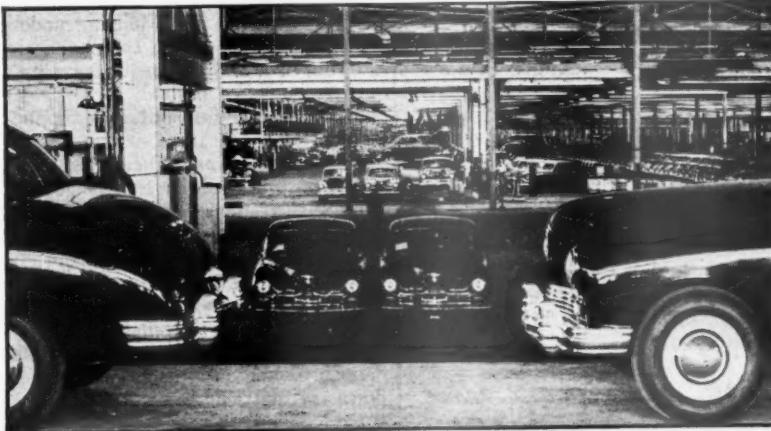
its light car division had been "discontinued."

Behind those decisions lie lengthy discussions and arguments within the companies as to the wisdom of starting output next fall on brand-new cars. Basic in these considerations were reports from steelmakers that even next year there was no hope of enough steel for unlimited auto demands. Not until 1948, steel people told top G.M. and Ford officials, would there be enough flat rolled for production above approximately 5,750,000 cars and trucks per year.

• Other Shortages, Too—That meant all other car divisions of those companies—like other producers—would probably be running for 18 months or more before they could fill all their demands. To introduce new cars at this time would simply thin out their available supply of steel.

Had this been the only decision to make, the Chevrolet Fifty and the light Ford might have gone into production. The steel situation was well understood when tooling was started for them and men were assigned to staff the factory and to plan the merchandising of the new cars.

But scarcities of lead, copper, and pig iron give evidence of continuing, although probably not for as long as steel.



With more shortage woes than most, Kaiser-Frazer Corp. is not plagued by one worry—what design to offer in 1947. All the units rolling off the assembly lines at Willow Run (above) have already been dubbed 1947 models.

THE GRAND OLD DRINK OF THE SOUTH



For GRAND OLD FASHIONEDS

The Grand Old Drink of the South

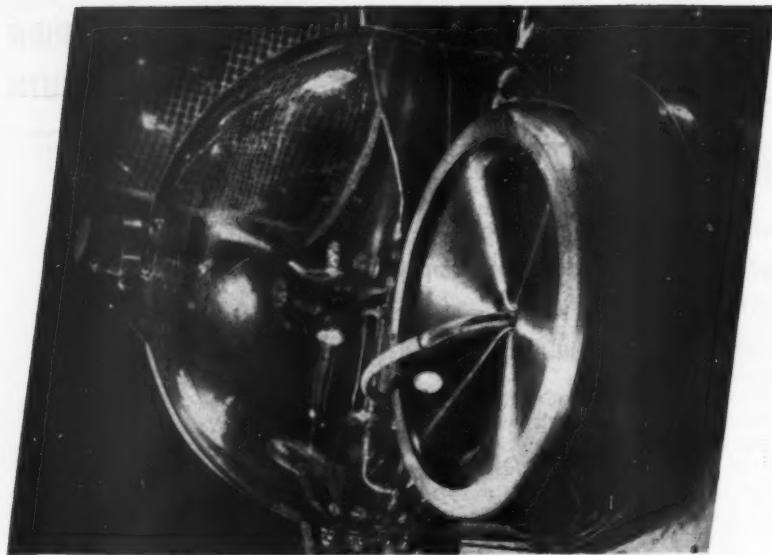
There's a subtle smoothness about 100 proof SOUTHERN COMFORT—*The Grand Old Drink of the South*—that makes Old Fashioneds taste infinitely better. New to you? Then don't wait to try it.

There's Only One

SOUTHERN COMFORT
REG. U. S. PAT. OFF.
100 PROOF LIQUEUR

America's Most Versatile Drink

SERVED ON MANY OF THE NATION'S FINEST TRAINS
SOUTHERN COMFORT CORPORATION • ST. LOUIS 2, MO.



"CRYSTAL BALL" *to help plan future business*

No fortune-teller's crystal, this, but a laboratory model of a DPI high-vacuum molecular still. This "crystal ball" has forecast the fortune of many a once worthless substance, by reclaiming precious oil fractions separable in no other way.

The bell-jar still, and its commercial prototypes now in production-line use at DPI, represent a wealth of research experience in high-vacuum technology—experience and scientific data you may be able to use in making plans for your future business or product improvement. Because DPI research means:

1. Pioneering in the use of molecular distillation. Many substances "undistillable" before—waxes, heavy oils and fats—come apart magically in the molecular stills, yielding fractions often more valuable than the parent substances.

2. Exploring the production and use of high vacuum. By using vacuums up to one ten-billionth the density of air, original research in high-vacuum chemistry has created entirely new types of equipment for many uses: high-vacuum stills, pumps and gauges, special oils and lens-coating equipment—with more to come as more uses are found for high vacuum in research and industry.

3. Expanding the knowledge of the vitamins. A major part of DPI operation is the high-vacuum distillation of bland, stable concentrates of vitamin A and E. Much of what is now known about these vitamins has originated from DPI research—a continuing source of up-to-date information that many DPI customers have found useful. DPI invites your inquiry on any count in which its experience can be helpful to you.

DISTILLATION PRODUCTS, INC. *Pioneering High-Vacuum Research*

755 RIDGE ROAD WEST, ROCHESTER 13, NEW YORK

"Headquarters for Oil-Soluble-Vitamins and High Vacuum Equipment"

Copyright 1946, Distillation Products, Inc.



and these problems interposed another vote against the light cars.

• **Opposition to Idea**—In G.M., one important aspect was opposition to the light car project which had been felt in some influential G.M. quarters ever since the idea was first broached. This viewpoint was that it was all but impossible to build a car for much less than the price range represented in the company's regular Chevrolet, and still have a full-size car which would sell in the mass markets.

The price consideration is illustrated by this week's action of OPA in increasing ceiling prices by 6% to makers who are in an over-all loss position. Ford immediately raised prices from \$68 to \$126 on its various models.

This opposition had been impotent by itself, but in combination with the unquestioned materials problems, it proved stronger. And it can be taken for granted that the recent stock market decline produced an effect of at least minor consequence on the policy minds in both Ford and G.M.—it posed a question whether a postwar recession of the nature of the 1921 dip might not be ahead. If so, of course, new car introductions a year from now might be badly timed.

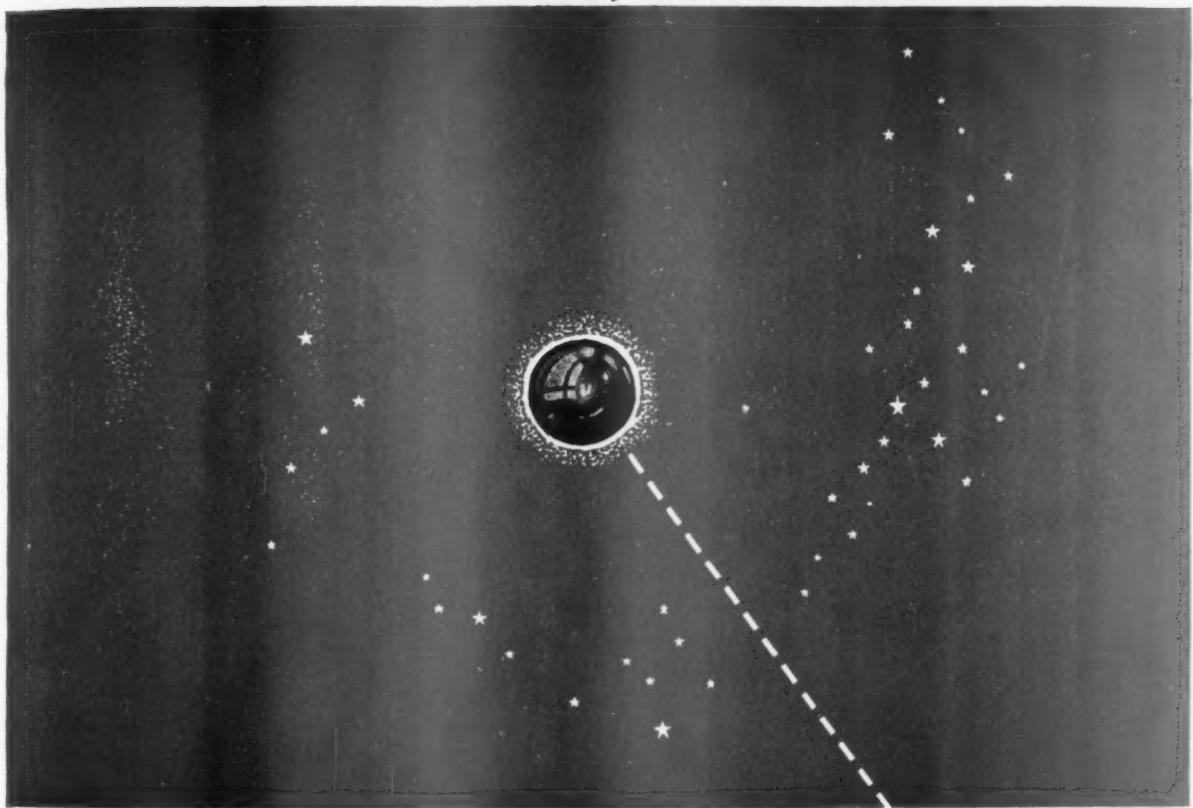
• **Won't Plunge First**—The effect of the Ford and G.M. decisions on other makers is obvious. Except for the new six-cylinder model which Willys-Overland Motors has announced it will produce early in 1947, there will be no new light cars next fall, and perhaps not for many years. Such companies as Chrysler, Studebaker, and Hudson, waiting for Chevrolet and Ford to dip their toes in light car sales waters, will not take the first plunge themselves. They will continue to concentrate their output in existing lines, reaping the profits that are inherent in carefully channeled operations.

Indicative of this channeling was Ford's recent action in halting production of five Ford and Mercury models in less demand. Other companies are showing little inclination to spread production notably beyond the original postwar models first put into production.

• **Brief Shutdowns**—Nevertheless, the auto companies will largely change over their current models to 1947's at the end of this calendar year, although the 1947's will be new models by courtesy only. With demand incessant, no company will close down for the month or so necessary for a complete change-over; beyond that, no company has enough tooling on order to justify shutdowns of that length.

Companies planning new models, therefore, will shut down for a week or less toward the end of the year to modify front end grilles, interior trim, and such. Concurrently, the usual year-end

NATURE'S FAVORITE, STRONGEST FORM



3430C

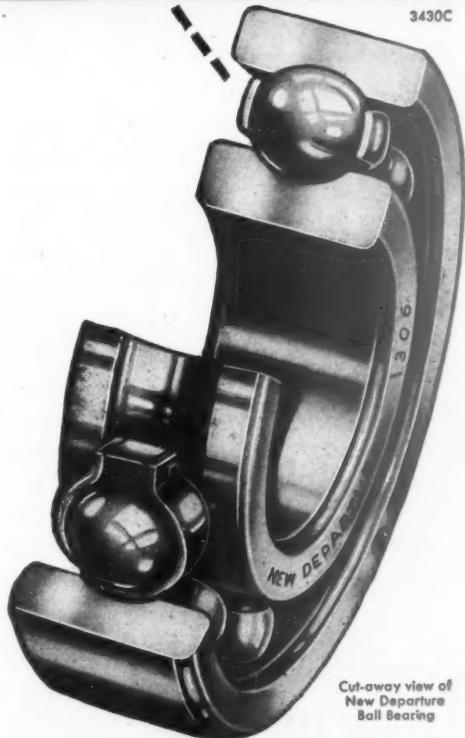
...is put to work in New Departures...

The New Departure Ball Bearing licks friction with free-rolling, tough, forged steel balls.

It is uniquely fit for today's high speeds, heavier loads—and precise positioning requirements.

This, plus meeting Industry's problems with *original thinking*, has made New Departure the world's largest manufacturer of ball bearings.

Nothing Rolls Like a Ball
NEW DEPARTURE
BALL BEARINGS



Cut-away view of
New Departure
Ball Bearing

NEW DEPARTURE • Division of GENERAL MOTORS • BRISTOL, CONN. • Branches in DETROIT, CHICAGO, LOS ANGELES and Other Principal Cities



Big Moo in California

"A photograph of the poster and car card which has been prepared by the California Dairy Industry Advisory Board is pictured here, titled 'Dairy Foods for the Bloom of Health.' It is undoubtedly the best piece of work that has yet come to our attention from anyone in the dairy industry on this continent.

"This piece of work well compares with, and even excels some of the Coca Cola and others of the leading national advertising posters.

"From this initial piece of artwork, preceded by the seal of the California Dairy Industry Advisory Board, we cannot help but feel that a most excellent start has been made in the achievement of the purposes and ideals for which we all in the dairy industry have worked so hard in the past. A very high standard has been

set by Brisacher, Van Norden & Staff, Advertising Engineers, who are directing this promotional work."

These words are not ours, but those of the well-known dairy specialist, Paul L. Schwartz, writing in *The California Dairyman* magazine. Mr. Schwartz has spent years in the fields of dairy industry publication and advertising.

Scores of dairy products distributors and handlers are co-ordinating their promotional efforts by running this handsome poster and car card over their company names.

Engineered Advertising may pioneer a new solution to your marketing problems, too. May we talk it over with you?

Brisacher, Van Norden & Staff, Advertising Engineers, have been serving many leaders of industry and commerce since 1919. Main offices in New York, San Francisco and Los Angeles; Radio Headquarters, Hollywood; Service offices in Chicago, Portland, Seattle and London, England.

The seal and slogan for the California Dairy Industry Advisory Board created by Engineered Advertising.



inventories will be taken, so the time will not be wasted. The result will be face-lifted cars which will continue the tradition of new yearly models in the auto industry.

Not all companies will take this step. Studebaker and Kaiser-Frazer, for example, call their current cars 1947's and do not plan to change them. Chrysler Corp. has termed its current cars simply "new models," and is likely to go ahead with them into 1947. But G.M., Ford, and the bulk of the smaller producers will change over.

AUTO PARTS HARD HIT

One out of every two workers in the automotive parts industry has been involved in strikes since V-J Day says Automotive & Aviation Parts Manufacturers, Inc., after surveying 229 plants employing about 137,000 men and women.

Reports from the plants showed that 86, or 38%, have had 178 strikes lasting from 1 to 115 days. Of the strikes, 94 lasted less than a full day. The 73,400 workers in these 229 plants—representing 53% of the total employed in the entire group—lost 16,260,000 man-hours during strikes.

Of the tie-ups, the C.I.O. United Auto Workers Union was involved in 142. Other C.I.O. unions were involved in nine, A.F.L. unions in 13, and independent unions in 14 more.

The figures do not include parts manufacturing operations of car and truck builders, like General Motors Corp. Only work stoppages and strikes within the employer's own plant, involving his own workers, were included.

COPPER CRISIS FEARED

The auto and housing industries are expected to be further affected soon by materials shortages in copper products unless OPA grants the price increase for special refinery shapes for which refineries and brass mills have been clamoring.

These shapes, which are made into special copper products, such as tubes and sheets, by the brass mills, are given a premium price because of special handling required at the refineries. At present this is based on a base period of August, 1941, which does not take into account any increased labor costs since then, according to the Civilian Production Administration.

Close downs in brass mill departments handling the special copper products made from the shapes are definitely in prospect unless OPA alters the price situation immediately, according to CPA officials.

The OPA pricing branch and refiners are scheduled to meet this week to discuss the problem.



2000° F at a 4-second clip with TOCCO

STEEL bars ride down this "roller coaster", travel through an inductor which heats their ends to 2000° F and pass on to an upsetting machine . . . one every 4 seconds. The bars shown here are $\frac{3}{4}$ " diameter, 6" long—heated for a 2" length.

The rapid heating for forging provided by TOCCO not only speeds production but it practically eliminates scale formation. Forging dies last longer. Closer tolerances

are maintained. Finishes are smoother. And since the cool, clean TOCCO unit is located handy to the upsetting machine, working conditions are better.

The same results—faster output, lower costs, improved quality—are obtainable for metals, ferrous or non-ferrous, in shapes and sizes of almost every description. State your problem and the TOCCO Engineer will gladly assist.

THE OHIO CRANKSHAFT COMPANY



FREE
BULLETIN

Mail Coupon Today

The Ohio Crankshaft Co.
Dept. W, Cleveland 1, Ohio

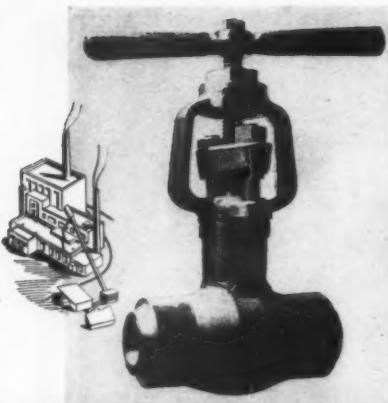
Send free copy "Results with TOCCO".

Name.....

Company.....

Address.....

City..... Zone... State...



"...life is permanent!"

Every test and all field experiences for more than ten years indicate that the seat and disc life of the Hancock 1500# WELDVALVE is permanent.

In the past six years, many thousands of these valves have been installed—85% of the country's total for 1500# and 2500# piping.

Two body sizes are sufficient (instead of eight), for the $\frac{3}{4}$ " and $1\frac{1}{2}$ " basic seat sizes cover practically all possibilities.

The design and construction make tremendous savings in weight and space. Find out about the many advantages of Hancock WELDVALVES by writing for a circular in which are illustrations and all the details of this modern, efficient valve.

There are many other types of Hancock Valves for industrial and transportation purposes. So wherever you need valves, specify "Hancock".

Stocked and sold by leading Distributors everywhere. Write to them or to us for full information.



HANCOCK Valves

MANNING, MAXWELL & MOORE, INC.
BRIDGEPORT 2, CONNECTICUT

Manufacturers of Hancock Valves, Aircraft Gauges, Consolidated Safety and Relief Valves and American Industrial Instruments. Builders of Shaw Box Cranes, Budget and Load-Lifter Hoists.

Man's Work Now

No longer a plaything, the motor scooter hauls people and materials for many industries. Production short of demand.

The motor scooter, stepchild of the motorcycle in the lighter-than-car transportation field, has moved up from its prewar status as a toy or sporting vehicle into more prosaic company as a commercial vehicle for certain specialized uses.

World War II is responsible. Sprawling war plants and the mobility-conscious armed services found a myriad of uses for the powered runabouts, which previously had been notable chiefly as a special headache to traffic safety planners.

• **Output Doubled**—Demand from commercial sources now far exceeds the former orders of war plants and the military combined. Production is virtually double its wartime peak, and would move even higher in response to order backlog if it were not for material shortages, labor difficulties, and all the other problems that are now afflicting industry at large.

Ingenious plant operators are finding all kinds of uses for the two- and three-wheel scooters. Airlines buy them to move personnel and materials around airports, plant foremen ride them to various in-plant locations, stevedores use them about docks, ice cream vendors are finding them to be handy vehicles for the distributing and selling of their products.

Largest manufacturer in the field is Cushman Motor Works, Lincoln, Neb.,

but there are plenty of competitors, many of them newcomers who saw what the scooters could do on war tasks and decided there was a peacetime market for them.

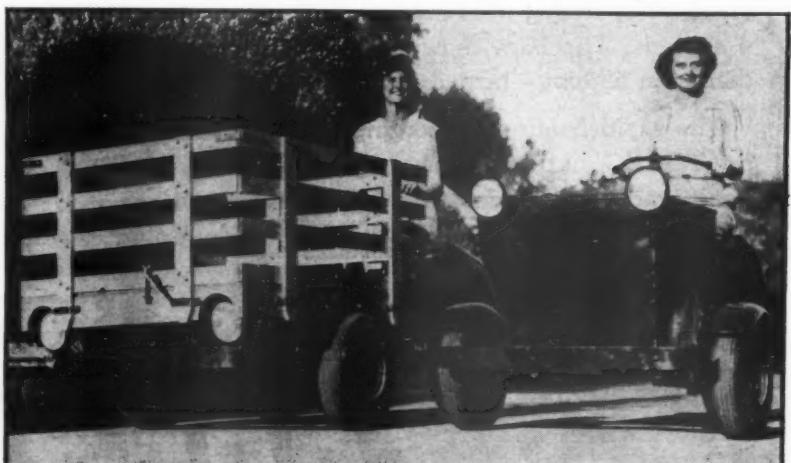
• **Variety**—Cushman's line is dominated by three models: a two-wheeler with direct drive, another with fatter tires and two-speed transmission, and a three-wheeler (two ahead and one, the drive wheel, behind) for commercial jobs. All of the three models use a 4-hp., 4-cycle, single-cylinder, air-cooled gasoline engine. Prices range from \$187.50 to \$325 f.o.b. factory.

An original competitor of Cushman was Salsbury Motors, Inc., which last year was taken over by Northrop Aircraft, Inc. Salsbury is installed in a \$1,000,000 factory in Pomona, Calif.

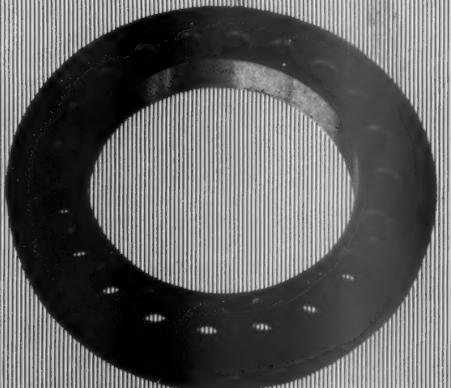
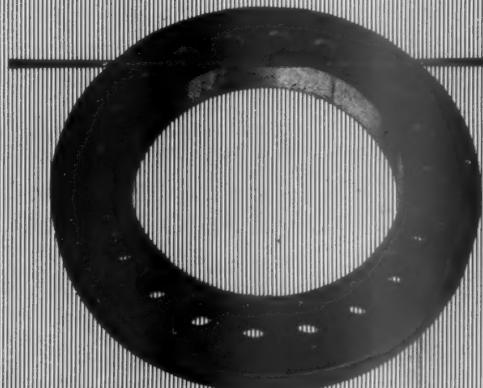
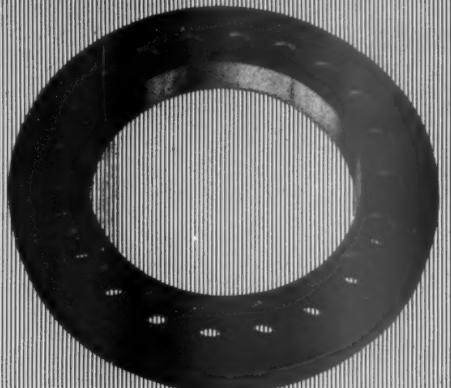
Speedway Motor Corp., Inc., Kansas City, has turned out some 300 scooters, is aiming at a production of 45 a day. Both its scooter and its midget motorcycle have top speeds of 60 m.p.h. and use a 6-hp., one-cylinder, air-cooled engine.

• **Decentralized**—American Moto-Scoot, Chicago, makes two models, also has a side-car to convert them into tricycle delivery units. Others in the field include J. A. Strimple Co., Inc., Janesville, Wis.; Safeticycles, Inc., La Crosse, Wis.; Midget Motors Supply, Athens, Ohio; Powell Aviate Co., Los Angeles; Keen Motors, Janesville, Wis.; the Maytag Co., Newton, Iowa, which makes a gasoline engine toy auto; and the Custer Specialty Co., Dayton, Ohio, which specializes in making vehicles for the disabled.

Nothing has yet been devised to make the scooter efficient on ice or snow, or in wet weather. That's one reason why manufacturers are looking to the industrial market for their busi-



Biggest manufacturer of the working scooter is Cushman Motor Works. One adaptation of the Cushman Model 59 has a stake body (left) for hauling bulky packages; another utilizes a smaller metal delivery box (right). Bumpers, headlights, and fenders are standard equipment on these factory-built bodies.



**Round
Parallel
Straight
Accuracy
Fine Finish
High Production**

=Bryant Method

The Bryant Method offers an answer to any internal grinding problem you may have. With a complete line of grinders, plus an enviable background in engineering, Bryant has a combination that can produce parts with true straightness, parallelism and roundness — with a surface finish to millionths of an inch. And, at a production rate that is worth boasting about.

A good example of a Bryant solution for a tough internal grinding problem is shown at the left. The parts are hardened steel rings. They meet all required tolerances for roundness, straightness, parallelism and surface finish. The Bryant method allows rough and finish grinding with the same wheel, thereby eliminating further operations formerly necessary to obtain true accuracy and fine finish.

We know your problem is different . . .
but as long as it involves internal grinding and has as its objective high production of parts to very close tolerances, you should consult a man who makes a specialty of solving such problems...
Send for the Man from Bryant!



Series 112



Series 16



Series 24

BRYANT CHUCKING GRINDER CO.

SPRINGFIELD, VERMONT, U. S. A.



BRYANT

These Savings in Power Costs were Guaranteed with Our Own Money

METAL PRODUCTS MANUFACTURER

\$18,990.00 Contract Price \$ 1,000.00 Cash Payment
17,990.00 Deferred Payment 17,000.00 Annual Earnings

TEXTILE MANUFACTURER

\$9,052.00 Contract Price \$ 1.00 Cash Payment
9,051.00 Deferred Payment 31,000.00 Annual Earnings

HOSPITAL

\$63,000.00 Contract Price \$ 1.00 Cash Payment
62,999.00 Deferred Payment 22,700.00 Annual Earnings

FOOD PRODUCTS MANUFACTURER

\$31,207.00 Contract Price \$11,707.00 Cash Payment
19,500.00 Deferred Payment 15,300.00 Annual Earnings

STEEL FOUNDRY

\$14,150.00 Contract Price \$ 1.00 Cash Payment
14,149.00 Deferred Payment 10,500.00 Annual Earnings

PAINT MANUFACTURER

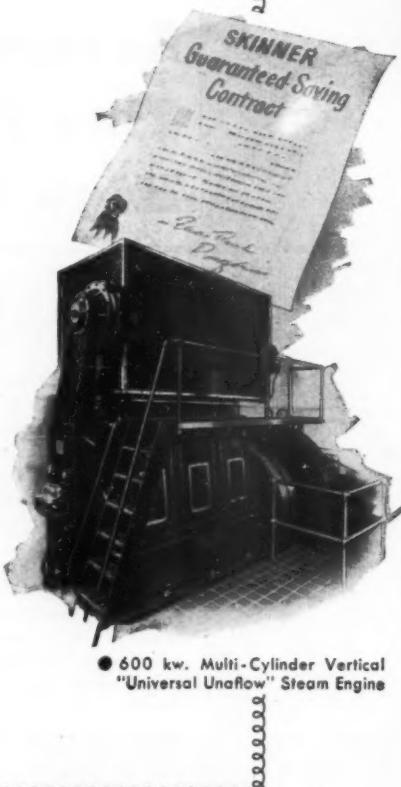
\$22,140.00 Contract Price \$ 40.00 Cash Payment
22,100.00 Deferred Payment 16,100.00 Annual Earnings

WOOLEN MILL

\$43,052.00 Contract Price \$ 4,053.00 Cash Payment
39,000.00 Deferred Payment 13,930.00 Annual Earnings

STOVE MANUFACTURER

\$15,000.00 Contract Price \$ 1.00 Cash Payment
14,999.00 Deferred Payment 5,400.00 Annual Earnings



● 600 kw. Multi-Cylinder Vertical
"Universal Unaflow" Steam Engine

THESE cases are astonishing but factual, and we have many more equally remarkable. Note that in each case the Deferred Payment was retired out of savings in a specified maximum time—always less than three years—savings which we guaranteed in a rigid Guaranteed Saving Contract, backed by our own money. And such savings continue for many years after the engine is paid for.

Practically every type of industry and institution is represented in the list of more than 2000 customers, who have found it more economical to generate their own electric power with Skinner "Universal Unaflow" Steam Engines. Write for List of Users and descriptive literature.

For Over 75 Years, Doing One Thing Well—Building Steam Engines

SKINNER ENGINE COMPANY, ERIE, PA.



A new Salsbury scooter for heavy work around the plant is the industrial truck (above) with a swivel turret borrowed from war planes and tanks.

ness—and also to California and the southern states.

The industry is gratified by last week's OPA action suspending all price controls on scooters.

OPA'S AUTO FORMULA

OPA made automobile price news twice on the same day this week. It announced its new formula for computing manufacturers' automobile prices, and it gave Ford a series of temporary increases on all lines averaging 6% (page 41).

The new formula provides that:

(1) The level of materials' prices on Aug. 31, 1946, is to be used in computing the increase in materials' costs over the 1941 average.

(2) Labor costs are to be figured on the basis of increases in average hourly earnings, not basic wage schedules as heretofore.

(3) Allowance will be made in computing car costs for increased costs of workmen's compensation, vacation allowances, and social security taxes.

(4) Percentage increases over 1941 levels in general and administrative salaries will be permitted in computing cost increases only insofar as they do not exceed the increases in direct and indirect labor costs computed above.

(5) The profit allowance factor will continue to be either the company's average rate of profit on its sales for the 1936-39 period or one-half the industry's rate for the same period, whichever is larger.

OPA declared that only manufacturers in an over-all loss position may apply for increases under the new formula, the life of which will extend unless amended until Mar. 15, 1947.

If Noise Demons send you home jittery



Then trap them with this ceiling



It's Armstrong's Cushion-tone

YOU AREN'T THE ONLY ONE. Your whole office feels the nerve strain and confusion caused by noise demons. Efficiency drops; errors increase. Office noise demons are caused by clattering machines, shrill bells, and loud voices. But noise demons can be ended quickly and easily.

You can trap these pests, once

and for all, with an economical ceiling of Armstrong's Cushion-tone*. The 484 deep drilled holes in each 12" square of this fibrous material absorb up to 75% of all noise that strikes the ceiling. Cushion-tone is an excellent re-

flector of light and can be repainted without loss of acoustical efficiency.

FREE BOOKLET, "How to Exterminate Office Noise Demons," gives all the facts. Write for your copy to Armstrong Cork Company, 3002 Stevens Street, Lancaster, Pennsylvania.



* Reg. U. S. Pat. Off.

MADE BY THE MAKERS OF ARMSTRONG'S LINOLEUM AND ASPHALT TILE

Some OF THE REASONS FOR LOCATING IN INDIANA

CLOSE TO
MARKETS &
MATERIALS

NO TAX.
PENALTY ON
ENTERPRISE

GOOD
LABOR
SITUATION

PLENTY
OF
POWER

INDIANA

Your LOGICAL
Industrial Location



★ Send for this
FREE BOOKLET
Get the Facts

INDIANA DEPT. OF COMMERCE AND
PUBLIC RELATIONS DEPT. B-16
STATE HOUSE • INDIANAPOLIS, INDIANA

AVIATION

Free-Lance Lines Solidifying

Nonscheduled and fixed-base operators face government regulation, but expect to gain recognized status in air transport. Many supporters, in and out of public office, protest restrictions.

Nonscheduled and fixed-base air carriers are romping ahead. Present odds are that they will achieve a recognized place in the air transport picture despite the competition of scheduled airlines and the prospect of restrictive government regulation.

A regulatory curb on the fancy-free operations of the uncertified airlines has been held up by nationwide protests, but these carriers accept as inevitable action by the Civil Aeronautics Board hedging the present exemption of non-scheduled common carriers from economic provisions of the Civil Aeronautics Act (BW-Jun.15'46,p18).

• **Calm Surface**—Few changes within the industry have reflected the controversy. A scattered handful of the smallest lines have stopped operating, but the expanding activities of others have offset the loss many times over.

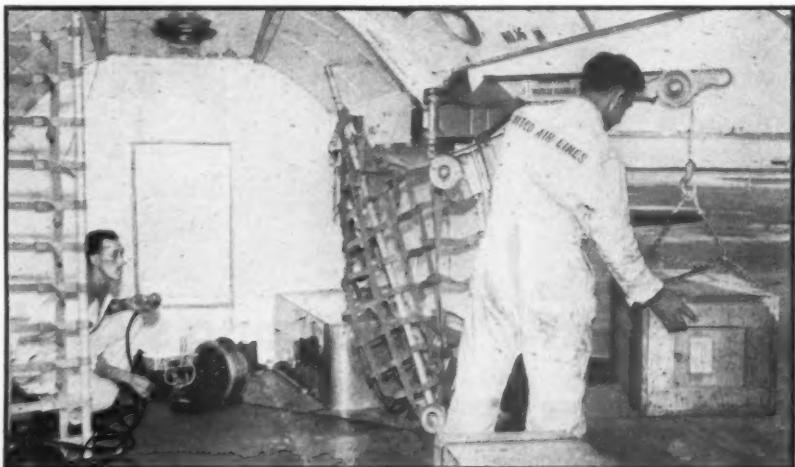
Charter and contract cargo activities are proceeding in the hands of a large number of carriers who are secure in the knowledge that their operation is out-

side the scope of the forthcoming restrictions. Intrastate operators are in the same position.

Some interstate carriers are moving cautiously until new regulations take effect. At least two railroad subsidiaries are conducting supplemental cargo operations by air, and two major steamship companies are making overwater passenger flights.

• **Wildcatting**—But all is not love and kisses within the industry. One leading cargo carrier recently called CAB's attention to cut-throat competition that had seen the lowering of some tariffs to $10\frac{1}{4}$ ¢ a ton-mile, where, he declared, it was impossible to show profit even at $12\frac{1}{4}$ ¢ a ton-mile with present cargo equipment and safe payloads. He decried "wildcatting tactics of some of the carriers, which obviously are operating without consideration of cost," and urged that the government step in to control the rate war.

Since CAB now is sifting the protests against its proposed changes in the



A LIFT FOR THE LOAD AND THE LOADER

For quicker, easier loading, United Airlines' new Cargoliner 230, which joined the company's air fleet this week, has a portable electric winch (above) to hoist aboard mail and freight. The winch is coupled with a 4-ft. boom that swings out from the big doors. It can be plugged into any of five electrical outlets on the plane, can lift 2,500 lb. at 30 ft. a min. The 4-engined Cargoliner is the all-freight version of United's passenger ship, Mainliner 230. Cruising speed is 230 m.p.h.; maximum load is approximately nine tons.



FAST MOVE

Even moving vans have grown wings. At the Newark (N. J.) airport, movers stow (above) household goods into a well-padded C-46 transport operated by Slick Airways, which—in conjunction with moving companies—has instituted a door-to-door service. Vans bring the goods to the plane, deliver them at flight's end. The cost averages about 18¢ a lb., about the same price for long distance hauling of uncrated furniture, Slick reports.

exemption order, it is likely that the new restrictions will distinguish between cargo and passenger operation and take special note of international nonscheduled activities—already conducted on a large and growing scale.

• **Overwater Competition**—The scheduled lines, handicapped in their newest international operations by lack of equipment and landing rights—some have not yet started routes for which they have been certificated—feel a bigger competitive pinch in overseas services than they do in their established domestic operations. The latter are on such scale that inroads by uncertified carriers, although comparatively heavy in the cargo field, are less noticeable.

The board will continue its policy of relieving the purely nonscheduled domestic operator from the requirement of a certificate of public convenience and necessity, but intends to remove this exemption for nonscheduled international carriers. Most nonscheduled overseas activity has been in the Caribbean area.

• **Early Action Likely**—It appears that whatever CAB does to bring the non-scheduled air industry under a semblance of the regulatory procedures that govern the scheduled airlines will be

Are You Acquainted with the WHOLE Norton Family?

ABRASIVE PRODUCTS

Grinding wheels ranging from tiny internals 3/16" x 3/16" to gigantic ten-ton pulstones—wheels of Alundum®, Crystolon® and diamond abrasives, of many different bonds; abrasive bricks, sticks, hones and segments; mounted points and mounted wheels; abrasive grain for polishing, lapping and tumbling.

GRINDING and LAPPING MACHINES

Norton cylindrical grinders range from the neat, compact 4 x 12" Type C to the gigantic 36 x 816" Type D and include special types for grinding crankshafts, camshafts, rolls and car wheels. Norton surface grinders are available in three sizes, 6", 10", and 12". There are three Norton Tool and Cutter Grinders and the Norton Buraway. Lapping machines for flat and cylindrical work including crankshafts and camshafts range from the small 10-U to the large Hyprolap®.

NORBIDE®

"The hardest material made by man for commercial use"—that is NORBIDE®, the trade name for Norton Boron Carbide. It is serving industry in three forms: (1) Norbide Abrasive for grinding and lapping carbide tools, and for lapidary work; (2) Norbide Molded Shapes for pressure blast nozzles and for plug, ring and other types of gages; (3) Norbide Metallurgical Compound for improving the hardness and cutting ability of tool steels and as a deoxidizing agent.

REFRACTORIES

The terrific heat of the electric furnaces which produce Alundum and Crystolon abrasives also gives these materials valuable refractory properties—properties which are made use of in a complete line of Norton refractory grain, cements, bricks, plates, tiles and other shapes for metal melting and heat treating, for enameling furnaces, ceramic kilns, boiler furnaces; also refractory laboratory ware for ignition, incineration and filtration.

NORTON FLOORS

The hardness, toughness and abrasive properties of Alundum abrasive are made use of in NORTON FLOORS—Alundum Stair and Floor Tile, Alundum Ceramic Mosaic Tile and Alundum Aggregate for terrazzo and cement floors. They are for use in public and commercial buildings and provide an extremely wear-resisting (wet or dry) for floors and stairs.

OILSTONES and COATED ABRASIVES

Sharpening stones in sizes and shapes to meet every need of the industrial worker, the farmer and the home craftsman; and abrasive paper and cloth in a wide variety of coatings and types for both industry and the home mechanic are available through Behr-Manning Corp., Troy, New York, Division of Norton Company.

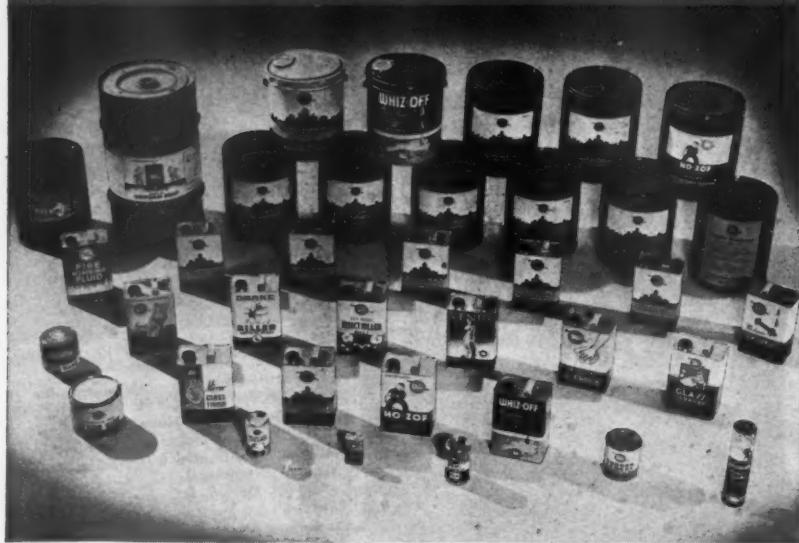
Information literature on any or all of these Norton products available on request—also Norton engineering service. Write today—no obligation.

® Trademark registered U. S. Patent Office

NORTON COMPANY, WORCESTER 6, MASS.

NORTON

You'll find the right tools
for any maintenance job
in this complete line.



WHIZ MAINTENANCE CHEMICALS

Chemicals are the modern, labor-saving tools of maintenance men and women! The right chemicals mean a better job—done in less time with less effort. WHIZ provides the best tools for each job.

For helpful information on the maintenance products you need, see your WHIZ distributor, or check this list and write for full details to:
R. M. Hollingshead Corporation, Camden, New Jersey; Toronto, Canada.



FLOOR WAXES AND CLEANERS SCRUB SOAPS AND DISINFECTANTS
FURNITURE POLISHES METAL POLISHES HAND SOAPS INSECTICIDES
DRAIN AND BOWL CLEANERS DEGREASERS

done before the end of the year, despite the opposition that met its findings in its 1944-45 investigation of nonscheduled air services.

The extended deadline for comment on the proposed amendment of the exemption order has expired. Board members feel that the extension has given newcomers in the field, many of whom are war veterans with war-surplus equipment, the same opportunity for expression that would have been offered had CAB reopened its investigation. A lot of time has been saved in the bargain.

Next procedural step is argument on the proposed exemption order amendments, probably early next month. Because the board considers the non-scheduled situation one of its most serious problems, fast action can be expected.

- **Yardstick Contested**—While most un-certified carriers do not resent a new requirement that they register and file information as to the extent of their services, they do object to CAB's proposed yardstick for determining whether an operation is nonscheduled. Particularly obnoxious to them is the presumption that a carrier is not non-scheduled if it operates more than ten round trips a month between the same two points for two consecutive months.

The suggested classification of these carriers, says the Institute of Air Transportation, Inc., to which a large number of the operators belong, "if applied literally would make it impossible for most of the nonscheduled carriers to operate."

- **Official Aid**—Particularly hostile comment on the board's proposed tightening of regulation came from Sen. Pat McCarran, coauthor of the Civil Aeronautics Act, who denounced the restrictions as a contravention of congressional intent. He said the law never contemplated economic regulation of non-scheduled or fixed-base operators.

A letter to the senator from a board member replied that it was not the board's intention to extend regulation to other than common carrier operations.

Secretary of Commerce Henry Wallace is another protestant. In a 24-page statement he urged CAB to set aside its restrictive interpretation of the term "nonscheduled," restore the "open door" policy under its original exemption order, reopen its investigation to accept testimony from many nonscheduled carriers who have established operations since the original hearings, and set up a recurrent reporting system to assure the continuous availability of operating data.

- **Against Restriction**—Wallace said that no restrictive economic regulation should be imposed at this time on common carriers by air offering other than



**IF YOU
OWN PROPERTY,
YOU SHOULD OWN
THIS BOOK!**

... send for your FREE Copy today!

If you own property of any sort . . . a home, an automobile, personal effects . . . you need this U. S. F. & G. Personal Insurance Audit Book! Clear, simply-worded and with each hazard illustrated, this book enables you to make your own complete insurance audit. It provides a permanent record of property values, amount of present insurance, premium rates, expiration dates, etc., thus giving you your fire and casualty insurance picture at a glance.

A Book for Business, Too

Where the Personal Audit records your personal insurance needs and coverages, the U. S. F. & G.

Graphic Audit provides a similar record of your business insurance. You'll be able to tell at a glance whether the fire insurance carried on your place of business covers the personal property of employees . . . whether burglary insurance also covers damage caused by burglars . . . whether fidelity bonds cover all employees, and so on. The Graphic Audit is a "must" for any business!

Mail Coupon Today

To get your copy of the Personal Insurance Audit, to have a Graphic Audit made or for both . . . fill out and mail the attached coupon. There's no obligation, of course, so mail the coupon today.

"Consult your Insurance Agent or Broker

as you would your Doctor or Lawyer"



Fill Out and Mail This Coupon

UNITED STATES FIDELITY & GUARANTY CO
133 E. REDWOOD STREET
BALTIMORE 3, MD.

I would like a complimentary copy of your
 Personal Insurance Audit Book
 Graphic Insurance Audit Book

Name

Address

City, State

U. S. F. & G.

UNITED STATES FIDELITY & GUARANTY CO.

HOME OFFICE: BALTIMORE 3, MD.

affiliates

FIDELITY & GUARANTY FIRE CORP., BALTIMORE

FIDELITY INSURANCE CO. OF CANADA, TORONTO

THE *Finnell* MOTOR-WEIGHTED
MACHINE GIVES YOU . . .

COMPLETE

Automatic Switch Control

That's because the *Feather-Touch* Safety Switch on the *Finnell* Motor-Weighted Floor-Maintenance Machine operates on both sides of the handle. In other words, the switch works with either hand from either side of the handle! The moment the operator releases his grasp, the switch automatically disengages and the machine stops. *Feather-Touch* characterizes the ease with which the switch is held to 'on' position.

This 600 Series *Finnell* is self-propelled . . . glides over the floor with virtually the effortless guidance of the operator. Horizontally-mounted motor and correct distribution of weight, affording truly balanced operation, also contribute to the greater handling ease of the *Finnell* Motor-Weighted Machine.

Mounts a G. E. Drip-Proof Capacitor Motor . . . is equipped with Timken Bearings. And the ruggedly constructed worm drive, housed in an extra-capacity leak-proof gear case that is lubricated for 2500 hours, assures smooth, noiseless performance. Rubber handle grips are perfectly insulated. A precision product throughout, reflecting *Finnell*'s four decades of specialized experience in the manufacture of floor-maintenance equipment.

The 600 Series *Finnell* is adaptable to scrubbing, waxing, polishing, steel-wooling, sanding, and grinding. Five sizes from which to choose: 11, 13, 15, 18, and 21-inch brush diameter.

For consultation or literature, phone or write nearest *Finnell* branch or *Finnell* System, Inc., 3809 East Street, Elkhart, Indiana.

Canadian Office: Ottawa, Ontario.



*The Machine Stops
When Handle
is Released*

FINNELL SYSTEM, INC.

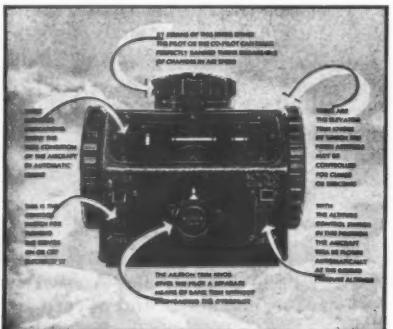
Pioneers and Specialists in
FLOOR-MAINTENANCE EQUIPMENT AND SUPPLIES

BRANCHES
IN ALL
PRINCIPAL
CITIES



FOR BETTER SCHEDULES

Bad weather, bugaboo of commercial airlines, suffered another setback last week with the announcement by United Air Lines of its adoption of the Sperry electronic Gyropilot. The controls (above), mounted within hand's reach of the human pilot, switch on an intricate system of motors, gyros, and amplifiers whose purpose is to stabilize aircraft in rough weather, maintain constant altitude and direction—important in achieving airline schedule reliability. The device can also automatically fly the plane in to a landing on a glide path directional beam. United reports that the Gyropilot will become standard equipment on most of its planes.



fully scheduled services supported in part by air-mail payments. He cited four immediate or potential public benefits to be derived from continued operation of nonscheduled services on an unrestricted basis:

(1) "An aggressive, experimental, and large-scale development of business opportunities in providing services other than the fully scheduled types;

(2) "Protection of maximum opportunity for investment of private capital in small business;

(3) "Maximum development of new air transport services to satisfy the needs of commerce and maximum extension

of services to points and areas now served inadequately or indirectly only; and;

(4) "Provision of a truly economic standard for measuring the cost of both scheduled and nonscheduled service through preservation of free consumption based upon services rendered without the benefit of air-mail payments."

• **Public Support**—Besides McCarran and Wallace, nearly 75 uncertified airlines, industry groups, public agencies, chambers of commerce, and private organizations championed the cause of the nonscheduled operators.

They were joined, also, by more than 1,000 private citizens who registered protest by letter or coupons clipped from "Why Throttle Us" advertisements placed in metropolitan newspapers by the Institute of Air Transportation.

A new issue has been tossed into the situation, meanwhile, by a St. Louis fixed-base operator who has applied for a "grandfather" certificate nearly eight years after the time for such applications was believed to have expired.

• **Chance for Certification**—Grandfather certificates of public convenience and necessity are those which the Civil Aeronautics Act directed be issued to operators at the time the law was approved in 1938, if the operators fulfilled certain requirements. A 120-day time limit was specified for the filing of grandfather applications, but the current applicant declares that the limitation was set aside by the nonscheduled exemption order, which came along 117 days after the act became law.

Success of the application might greatly alter the entire air transport picture, since it would admit to certification some of nearly 30 grandfather applicants whose requests the board has not acted on because of the exemption order, although they were filed within four months after the act was approved.

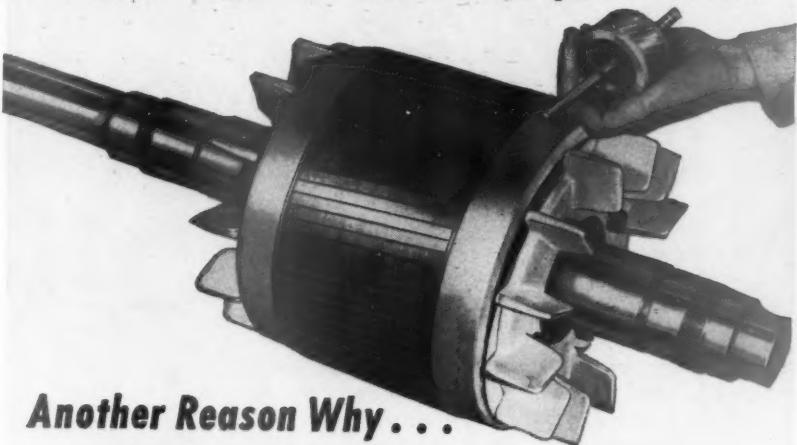
DRIVES FOR U. S. ROUTES

Pan American Airways has put new push behind its attempt to get into the domestic air transportation field. Public announcement of its plans coincided with the filing of exhibits with the Civil Aeronautics Board to bolster its applications, made originally in March, 1945.

The carrier wants transcontinental and other Great Circle, nonstop routes to tie together the 13 U. S. cities it is authorized to serve on its overseas routes. Other airlines, at least ten, object to having Pan American carry domestic as well as overseas traffic from these cities.

Seeking the backing of public opinion, Pan American is telling its story in a series of advertisements appearing in 65 newspapers.

Wagner Uses Cast Aluminum Construction Exclusively for the Squirrel Cages of General-Purpose Motors



Another Reason Why . . .

**If it's built by
Wagner
—it's dependable**

Hundreds of thousands of Wagner motors have been built with cast aluminum rotors during the past 25 years and are giving perfect satisfaction.

The mechanical and electrical characteristics inherent in cast aluminum rotors have contributed in a large measure to the reputation for quality and dependability established by Wagner motors.

The reputation for quality and dependability also applies

to other Wagner products which include transformers, unit substations, industrial brakes, air brakes, hydraulic brakes, CoMaX brake lining, NoRoL, and Tachographs (recording speedometers).

If you need electric motors or other Wagner products consult the nearest of Wagner's 29 branch offices, each manned by trained field engineers, or write to Wagner Electric Corporation, 6460 Plymouth Avenue, St. Louis 14, Missouri.



Wagner WE Electric
ELECTRICAL AND AUTOMOTIVE PRODUCTS

M48-34



Rollers Roll

**AND PRECISION
IS MAINTAINED**

Hyatt Roller Bearings reduce friction and wear—and add greater smoothness and efficiency wherever shafts or wheels turn. For more than half a century "precision" has been the Hyatt watchword—your assurance of perfection in roller bearings for every application. Hyatt Bearings Division, General Motors Corporation, Harrison, New Jersey.

HYATT
ROLLER BEARINGS

Air Merger

Lockheed-Consolidated Vultee deal would place combined firm near top of aircraft industry, with record peacetime backlog.

Following World War I, a starved aircraft industry was forced into a series of mergers to keep even a semblance of meat on its bones. From one of those mergers came Curtiss-Wright Corp., the nation's largest supplier of aeronautical equipment during World War II (sales of more than \$4,000,000,000).

With the industry in a healthier condition now than in 1919, fewer mergers were expected. So the leak about Lockheed Aircraft Corp. and Consolidated Vultee Aircraft Corp. was a double helping of surprise, as it involved two of the largest and strongest of the aircraft companies.

• **Foundation**—But after a second look, observers could find little to be surprised about. Item one: Lockheed's president, Robert E. Gross, has long been on the alert; in the thirties he took over Vega Aircraft, earlier this year tried to set up a deal for Curtiss-Wright. Item two: Victor Emanuel, who is the kingpin of Aviation Corp., which controls Consolidated Vultee, has recently been showing less interest in aviation and more in the market for trucks, buses, and agricultural machinery.

The Lockheed-Consolidated deal, if completed, probably will involve a stock transfer, and will bring together under Lockheed management the second and third largest wartime producers of airframes. It would give Lockheed a complete line of civilian and military airplanes, ranging from the Little Dipper one-place personal airplane and four-place Stinson Voyager 150 on up through the twelve-place Saturn, 40-place Convair 240, 48- to 64-place Constellation, and the mammoth 180-passenger Constitution and the projected 300-passenger Convair model 37 (transport version of the six-engined B-36).

Lockheed would take over Consolidated's Army trainer, P-81 jet fighter, and B-36 to add to its own P-80 for the Army and P2V patrol bomber and Constitution transport produced for the Navy.

• **High Statistics**—Lockheed would have a peacetime backlog of \$474,910,000—a staggering figure for the aircraft industry—and expected 1946 sales of \$150,000,000, highest in the industry. Its working capital would be nearly \$100,000,000, third after Curtiss-Wright and United Aircraft, its net worth somewhere around \$77,000,000, second only to United Aircraft.

d
d
e
e
o
f
d
d
n
r
k
d
p
e
ft

k,
r-'s
ng
ne
ar
t.
e
n
y
n
s,

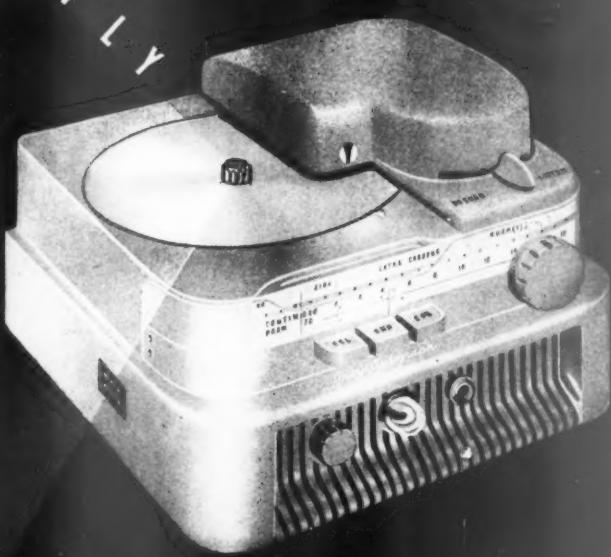
if
ek
er
d
r
n
r
er
r
p
0
n
s
d
s

li
r,
or
d
ne

ve
a
s
0,
ts
0,
d
e
ly

S T A R T S A N D S T O P S

I N S T A N T L Y



I N T H E M I D D L E O F A W O R D

Outstanding among the many exclusive Gray Audograph features is the remarkably fast start-stop control. You can stop dictating in the middle of a word and resume without pausing a second! And when you play back there's no screech or slurring of words. The Gray Audograph records on Flexograph unbreakable discs which come in three sizes: over 20 minutes, 30 minutes and 60 minutes recording. The 60 minute disc costs about one-third less than two 30 minute records and is exclusive with the Audograph. Send for booklet describing ALL the Audograph features.

Distributors have been appointed in New York and Hartford. Responsible persons will be selected for the Gray Audograph franchise in other cities.

T H E G R A Y M A N U F A C T U R I N G C O M P A N Y

W. E. DITMARS president • 16 ARBOR ST., HARTFORD, CONN. • 230 PARK AVE. N.Y.



YOU FURNISH LYON will

Lyon facilities for the production of a wide range of sheet steel products are far in excess of our steel receipts. In spite of the excellent job being done by the steel producers, there just isn't enough to go around.

If you have steel on hand, or available, Lyon can help you in one of two ways:

1. SPECIALIZED CONTRACT PRODUCTION

We will manufacture to your specifications: assemblies, sub-assemblies or parts, (see example illustrations of contract items) in gauges No. 8 and lighter up to 30; in Lyon production run quantities.

2. STANDARD LYON PRODUCTS

To complete your plant expansion or Conversion Program we will accept your steel and supply you with any selection of "Lyon Standard Products", a few of which are: Steel Shelving, Lockers, Shop Equipment, Kitchen Cabinets, Filing Cabinets, Gravity Conveyors, etc. See illustrations.

Get in touch with your Lyon dealer or your closest Lyon District Office.

LYON METAL PRODUCTS, INCORPORATED

General Offices: 910 Monroe Avenue, Aurora, Illinois

Branches and Dealers in All Principal Cities

CONTRACT PRODUCTION OF SHEET STEEL ITEMS—GAUGES 8 TO 30



Water Cooler Containers



Storage Battery Racks



Testing Cabinets



Office Equipment Stands

THE STEEL make the product

STANDARD LYON PRODUCTS



Lockers



Kitchen Cabinets



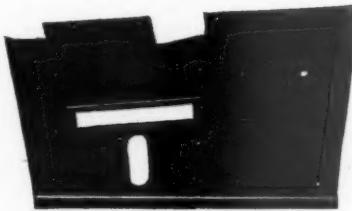
Benches



Filing Cabinets



Adjustable Shelving



Shop Boxes



Electrical Control Units



Home Appliance Stands

give your engines new

LIFE



GET

Pedrick

"HEAT-SHAPED"
PISTON RINGS

MORE POWER and pep . . . lower operating costs . . . fewer overhauls . . . longer engine life—these are the important things today in the operation of vehicles and industrial equipment. Reconditioning with "Heat-Shaped" piston rings gives you the greatest assurance of accomplishing these things—and only PEDRICK piston rings are "Heat-Shaped." WILKENING MANUFACTURING CO., Philadelphia 42, Pa. In Canada: Wilkening Manufacturing Co. (Canada) Ltd., Toronto.



OPA CHECKLIST

General Orders

Sales of coal to foreign government purchasing missions (except that of Canada) may be made at the export price rather than the lower domestic quotation. This is the second exception to the general rule that sales to such missions are domestic sales, subject to domestic ceilings. Flour is the other exception (Amendment 1, Third Revised Maximum Export Price Regulation).

Maximum prices on chlorine, caustic soda, and soda ash have been increased 5% under that provision of the law requiring OPA to lift producers' earnings to the 1936-39 level (Amendment 23, Supplementary Regulation 14F).

- The ceiling price on flaxseed has been set on the basis of \$4 a bushel at Minneapolis, an increase of 65¢ over the June 30, 1946, maximum (Amendment 10, M.P.R. 397).

Manufacturers of construction and road maintenance machinery and equipment have received a new price increase of 3.5%, in addition to the 10% increase granted last April (Order 676, R.M.P.R. 136).

A new industry profit factor of 2.75% for use in figuring future ceiling increases has been set for manufacturers of wood commercial furniture. Manufacturers who have already been granted increases under the old factor of 3.6% will not be affected (Amendment 18, Supplementary Order 118; Amendment 15, Supplementary Order 119).

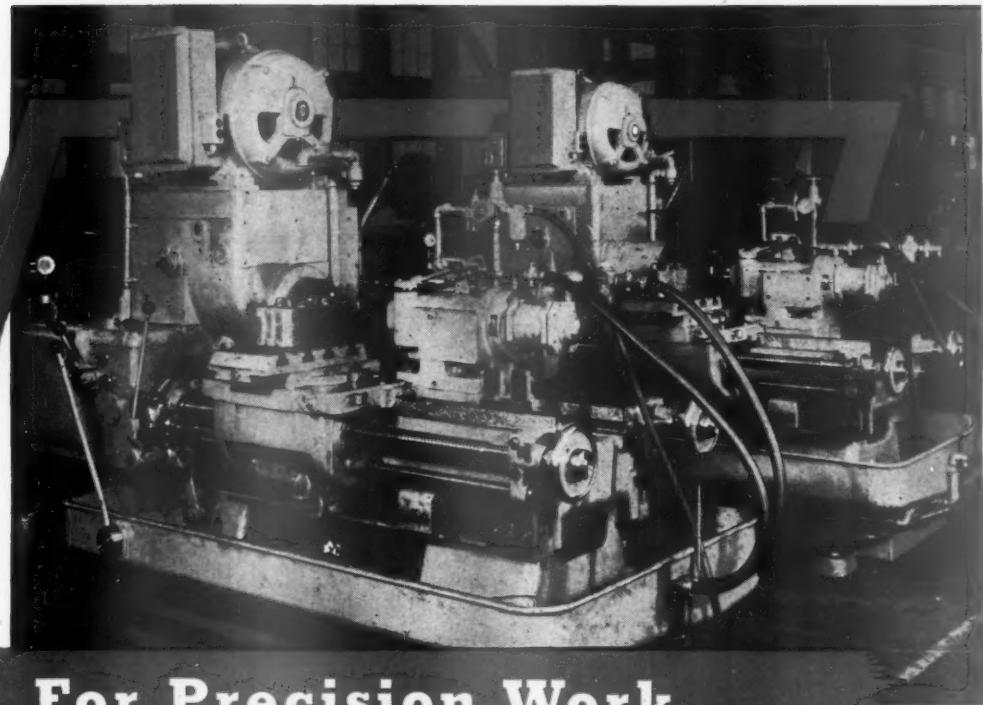
- Fourth-quarter industrial sugar allotments will be based on the same percentage factors as those in effect for the third quarter, except for 96 counties in which the allocations have been changed to compensate for population shifts. Allotments have been increased in 51 of these, decreased in 45. OPA holds out little hope for an increase in industrial sugar rations in the first part of 1947.

In a strongly worded statement, OPA announced that sale of hides under an agreement that any future ceiling price increase will be met by the buyer is illegal. It also re-emphasized an earlier statement that there is at this time no justification for raising hide prices, and that no increase is contemplated.

- At the direction of the Secretary of Agriculture, OPA has set producers ceilings on gum turpentine in bulk at \$1.05 a gal., an increase of 21½¢. Ceilings on wood turpentine remain unchanged (Amendment 4, R.M.P.R. 561).

OPA has raised maximum prices on window and picture glass by approximately 18% to compensate for increased labor, material, and freight costs (Amendment 62, Order 1, Section 25, M.P.R. 592).

30
HP
3600
RPM



For Precision Work
at High Speed....

Select
CENTURY MOTORS

Their remarkable freedom from vibration enables you to get all the precision that your machine was designed to give.

On applications such as the automatic lathes shown above, Century supplied 3600 RPM squirrel cage 30 horsepower motors to provide the speed range required by the manufacturer. To assure maximum precision at this high speed, these motors were specially balanced.

Whether your electric motor applications require high speeds and special balancing — or normal operating speeds, there's a Century motor that will operate your machine at top performance. Rigid construction and accurate machining plus good electrical and mechanical balance help to maintain smooth operation throughout their long life.

Century motors are built in a wide range of types — open and protected — in sizes from 1/6 to 400 horsepower. They are engineered to the functional characteristics of the machines they drive to assure top performance. Specify Century motors for all your electrically powered equipment.



CENTURY ELECTRIC COMPANY

1806 Pine Street, St. Louis 3, Mo.

Offices and Stock Points in Principal Cities



WALL STREET**For the Airlines:
Wanted: A Daniel**

It's no secret that a revolution is taking place in the air industry—a revolution so swiftly paced that it would require the judgment of a Daniel, the wisdom of a Socrates combined with the imagination of a Jules Verne in order to appraise its final result. The fact remains, individual airlines in the past year have been doing two jobs remarkably well—have carried on a tremendously expanded day-by-day



Newest Merrill Lynch Study:
... No Sleepy Giant

business and, at the same time, have been laying the groundwork for an almost brand new airline system in the years ahead. The rub: What form will this new system take?

No sleepy giant, the airline industry is fully aware of its many problems, is determined to transform them into opportunities. In order to help investors understand this situation, the nationwide investment firm of Merrill Lynch, Pierce, Fenner & Beane has just completed a study of the diverse factors confronting the industry. Entitled "AIRLINES—1946," this booklet discusses competition, Government regulation, labor costs, management problems, passenger and cargo potentials, amount and types of new equipment as well as other varying aspects affecting the industry's prospects. In addition, "AIRLINES—1946" contains individual analyses of 18 leading companies.

As with all M L, P, F & B studies, readers need only indicate their interest in order to receive a copy of "AIRLINES—1946."* It will be mailed promptly—without charge. They will find it presents a frank, fair and factual picture of one of the most interesting of American industries.

* For your copy of "AIRLINES—1946" address your request to: Department "BW," Merrill Lynch, Pierce, Fenner & Beane, 70 Pine Street, New York 5, N. Y.

FINANCE (THE MARKETS—PAGE 114)**Wall St. Heeds Seismograph**

Sale of 140,000 shares by Seismograph Service Corp. focuses attention on a type of scientific exploration that has become big aid to oil industry and an important business in its own right.

The new corporate issues market sometimes brings into public view for the first time a company that has been operating within the narrow confines of some specialized, half-hidden, but interesting segment of American business.

A case in point is the recent sale at \$12 each of 140,000 shares of common stock of the Seismograph Service Corp. of Tulsa, Okla.

• **Business Instrument**—According to Webster's, a seismograph is no industrial tool but simply "an apparatus to register the shocks and undulatory movements of earthquakes."

What Webster's does not add, however, is that the seismograph has long proved useful in business. As Tulsa and other petroleum centers can testify, that scientific instrument has become an increasingly valuable aid to the oil and gas industry in its efforts to locate new sources of supply.

Benefiting from this trend in recent years has been Seismograph Service, the largest independent operator in its field. Over the last decade, under the leadership of G. H. Westby, once Cities Service Oil Co.'s chief geophysicist, it has conducted worldwide confidential seis-

mograph surveys for some 200 oil companies and independent operators.

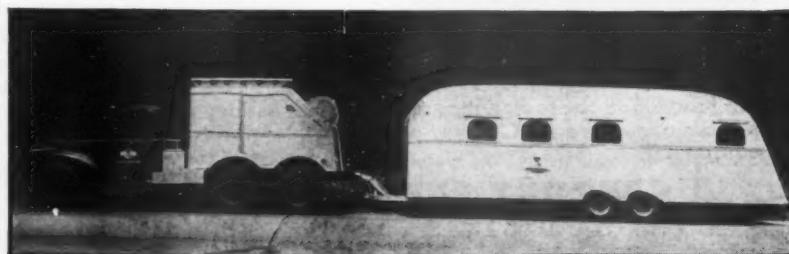
• **Nondrilling Techniques**—To date no reliable method for the direct discovery of oil without drilling has been discovered. All generally accepted nondrilling techniques reveal only the location of favorable geological structures. In the early days of petroleum geology, many such structures weren't hard to discover because they were often plainly visible on the surface.

Prospecting for oil, however, has become more difficult. All the easily found fields have been discovered, and land now prospected is usually covered with a thick mantle of soil which hides oil-bearing strata, if any, from the human eye.

• **Underground Mapping**—This is where the seismograph comes in. Seismograph Service and other companies in the same field assert that, except for the drill, their method provides the oil industry with its most effective technique



Instruments in Seismograph Service Corp.'s recording truck and laboratory (below) record the time at which a dynamite blast (right), detonated from a service truck, sets off miniature earthquakes. As the sound waves strike varied rock formation, echoes return to the surface, are recorded on the seismograph. Thus depths of various rock strata can be measured and a map drawn that will reveal formations favorable to oil deposits.





Is anything more important than a raise?

Most men want money and the good things money can buy.

Yet every employer has sensed, at times, that something more than money is involved in the psychology of a man asking for a raise.

To the man who works for you, a raise is a handshake, a vote of confidence. It tells him: "We like your work. You have a future here." It satisfies the need for recognition that lies deep in our hearts and the equally great need to feel safe in our jobs.

In the same sense this is the strength and value and the importance of a pension plan. It says to all those who work for you: "Your future and your peace of mind are important to us." To older employees a pension plan means security. To ambitious youngsters it means advancement through the regular retirement of older men. To both it is a token of management's sincere interest, all the more reassuring because it is freely given.

A John Hancock man can tell you many useful things about pension plans and offer sound, conservative advice based on the experience of thousands of other employers. Best of all, he can devise a pension plan suited to the particular needs of your business.

Your local John Hancock agent is ready to place his experience as well as home office assistance at your disposal.



This announcement is neither an offer to sell nor a solicitation of an offer to buy any of these Debentures. The offer is made only by the Prospectus.

\$77,500,000

Columbia Gas & Electric Corporation

3 1/8% Debentures Due 1971

Dated September 1, 1946

Due September 1, 1971

Interest payable March 1 and September 1 in New York City

Price 100% and Accrued Interest

Copies of the Prospectus may be obtained from only such of the undersigned as may legally offer these Debentures in compliance with the securities laws of the respective States.

MORGAN STANLEY & CO. THE FIRST BOSTON CORPORATION

September 12, 1946.

DIVERSIFICATION

The wise investor, pursuing his objective of yield or capital growth, seeks a careful balance among extractive, service and manufacturing industries . . . among consumer and capital goods industries . . . among common stocks, preferred stocks, and bonds—both corporate and public. To obtain this portfolio diversification, a flexible plan must be devised—one which takes advantage of the values offered in all market places.

With memberships in principal stock exchanges supplemented by active over-the-counter trading departments, the 23 Paine, Webber, Jackson & Curtis offices have facilities for handling every type of stock and bond business. Our clients therefore have direct access to markets covering the wide range of investments necessary to keep portfolios in harmony with changing economic trends.

A booklet describing our services is available on request.

PAINÉ, WEBBER, JACKSON & CURTIS

ESTABLISHED 1879

Members New York Stock Exchange and Other Principal Stock and Commodity Exchanges

NEW YORK BOSTON CHICAGO DETROIT CLEVELAND PHILADELPHIA MILWAUKEE
MINNEAPOLIS AKRON CONCORD DULUTH ELMIRA GRAND RAPIDS HARTFORD
LYNN PROVIDENCE SPRINGFIELD ST. PAUL WORCESTER

for locating deeply-buried oil-indicating structures.

The instrument used by such companies for their surveys represents a refined adaptation of the seismographic tools used to record earthquake disturbances and to measure the depth of the sea. With it they are now able to map rock formations at depths of as much as 15,000 feet.

• Sound Waves Used—Roughly speaking, seismic prospecting starts with the creation of sound waves by dynamite blasts in holes drilled to depths ranging up to 300 feet, depending on the near-surface materials. As each of these waves descends, a part of its energy is reflected back to the surface whenever a change in rock formation is encountered.

As these echoes return to the surface, they are picked up by strategically located detectors, similar in design to a phonograph pickup, called geophones. The geophone immediately changes the waves into electrical energy sufficient to start a galvanometer which records with a light beam, on photographic paper, the earth movements involved.

• Lines Tell the Story—On the same photographic record, or "seismogram," the exact instant of the dynamite explosion is recorded, with time lines which permit the measurement, in 1,000ths of a second, of the lapsed time of the echoes in question.

From these time measurements the depths of the various rock strata encountered can be calculated, and sufficient data obtained for underground contour maps.

• A Matter of History—When Seismograph Service started in business 15 years ago at Tulsa, seismographic prospecting was not generally accepted by the oil industry, and there was only one other unit operating in the same field. The company did not progress rapidly until Westby joined the organization in 1933 as vice-president.

Westby, 48 last month and the holder of University of Chicago and Colorado School of Mines degrees, never has been an arm chair executive. In addition to six years as Cities Service Oil's chief geophysicist, his career before joining Seismograph Service included three years in the Rocky Mountain area for Empire Oil & Refining Co., a Cities Service subsidiary, and four years, mostly in Algeria, as a geologist for a British company, London's Whitehall Petroleum Corp. In all these jobs, he had been applying geology and geophysics to oil and gas explorations.

• Convincing the Skeptics—Westby, in his new capacity, encountered much skepticism among oil executives and operators. To overcome this attitude, he started to strip the secrecy from Seismograph Service's method of locating promising oil structures. Later, when he

Science Dates Mine Law

Scientific prospecting for minerals may give rise to the first major revision in mining law in a quarter century. Crux of agitation for reform is that modern techniques have outmoded the system of filing mine claims.

Since western metal-mining began, filing of a claim has had to be preceded by actual evidence of minerals. Now, however, the geophysical prospectors, long active in oil exploration, are moving into metallics. They do not claim to discover ore, only favorable conditions. Their operations are expensive, must be conducted over a wide area, cannot be hidden.

• Under present laws, sharpshooters could hover around a geo-physical crew, wait for a discovery to be made, then rush to file their own claims ahead of the discoverer. Proposed congressional legislation was outlined before the Western Division of the American Mining Congress in Denver last week by Sen. James E. Murray's Small Business Committee.

It is proposed that scientific explorers be permitted to file "geo-physical claims." Each claim would not exceed 40 acres, and no single group of such claims could exceed a square mile. Such claimants would later have exclusive right to establish lode claims on the basis of their discoveries.

became its president, he decided that his company would, for the most part, keep out of oil production on its own, and concentrate on scientific consultation and seismic exploration.

This decision has proved a wise one. Since then the company has grown to be the largest independent in its field. Much has been accomplished in recent years, also, in perfecting the company's seismograph location technique under Westby's direction.

• **Earnings Increase**—The policies pursued have proved profitable. Earnings, after all taxes, were \$89,000 in 1936, \$487,000 in 1945, and \$185,000 in the first four months of 1946.

Preceding its recent financing operation was a reorganization of Seismograph Service's old corporate setup. This involved the organization of a new Delaware company to take over the business, and on Apr. 30, 1946, the latter, on a pro-forma basis, could report assets of \$2,829,000 and almost \$1,500,000 of capital and surplus.

Only half the shares sold publicly by a group headed by Chicago's Paul H. Davis & Co. represented the dis-



Sure Cure For "Box Jitters"

Loading 18-foot long boxes into a freight car is quite a problem in itself . . . especially when each box weighs half a ton. It's enough to give anyone "box jitters." But the Magee Carpet Company, Bloomsburg, Pa., devised a solution to this problem that cut loading time two-thirds and completely eliminated lost time accidents and injuries.

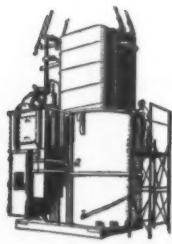
A rigid crane arm and tongs attachment, installed on a Towmotor Lift Truck, is the secret. Boxes are lifted by the tongs, swung deftly and quickly into place and stacked four high. In loading the top box, one end is set on the third box; the other end is then raised and the box is eased into balanced position. Using a pusher attachment of special design, the box is then nudged into place by Towmotor.

This same Towmotor, with attachments quickly removed, performs normal lift truck service about the plant, unloading and stacking raw wool, transporting rugs and carpets of all sizes and shapes.

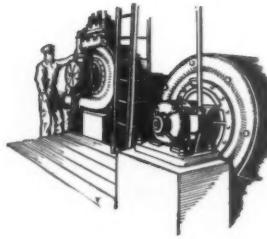
For every handling problem, however unusual, there is an engineered solution . . . a solution based on Towmotor experience and "know-how" gained in solving handling problems in every industry. Send for your copy of the Lift Truck ANALYSIS GUIDE today. Towmotor Corporation, 1221 East 152nd Street, Cleveland 10, Ohio.

**TAKE IT UP WITH
TOWMOTOR
THE ONE-MAN-GANG**

EVERYBODY LIVES NEXT



This giant Allis-Chalmers power transformer is outfitted with automatic voltage regulating equipment. Just one more example of A-C precision equipment which is setting new high standards of efficiency and dependability in the electric power field. No matter what your equipment requirement—call your nearby Allis-Chalmers office.



Large volumes of air or gas at moderate pressures are handled efficiently by this compact A-C turbo-blower. It is typical of the sound engineering and craftsmanship that make Allis-Chalmers a leader in supplying equipment to all industry. The A-C trademark on a piece of equipment is your assurance of sound design and construction.

XTDOOR...

DISTANCE is one thing that isn't taken very seriously any more. For today's world is full of distance-shrinking magic . . .

The magic of steam, petroleum and electricity that turns the wheels of streamlined transportation . . .

The magic of modern chemistry and metallurgy that creates new lighter, stronger materials for speedier, safer trains, ships and planes . . .

The magic of electronics that spans continents in split seconds—brings friends, news, entertainment into your home via telephone, radio, television . . .

The magic of modern science and industry that keeps all this vast machinery moving—aided by Allis-Chalmers who designs and builds equipment for every industrial field!

* * *

Machinery is Allis-Chalmers' big contribution—machinery that helps *all* industry do its job better . . . at lower cost.

In railroading, aviation, mining, electronics, communications—in all major industries—you'll find equipment stamped A-C making possible better, cheaper products and services. Through 99 years of sound engineering and fine craftsmanship, Allis-Chalmers has become known to the keenest technical minds as a leader in supplying the best production and operating equipment.

What better proof of this leadership can be cited than the simple fact that Allis-Chalmers is one of the "Big 3" in electric power equipment—biggest of all in range of industrial products?

Allis-Chalmers Manufacturing Company, Milwaukee 1, Wis.

ALLIS CHALMERS



**One of the Big 3 in Electric Power Equipment—
Biggest of All in Range of Industrial Products**



■ An outstanding name in the Neenah line, Tudor identifies a ledger made entirely of long cotton fibers. It is enduring, resistant to age, to handling, to heat, light and moisture. For permanent and important documentary and record work of every kind, including stock and bond certificates, insurance policies, deeds and tax records.

NEENAH

FINE BUSINESS PAPERS FOR EVERY PURPOSE

These famous names identify the papers manufactured by the Neenah Paper Company. The name *Neenah* appears in each watermark to identify the genuine for your protection.

OLD COUNCIL TREE BOND

SUCCESS BOND

CHIEFTAIN BOND

NEENAH BOND

NEENAH THIN PAPERS

TUDOR LEDGER

STONEWALL LEDGER

RESOLUTE LEDGER

NEENAH LEDGER

NEENAH INDEX BRISTOL

NEENAH PAPER CO. • NEENAH, WIS.

posal of new stock by the company. Some \$410,000 of the proceeds, estimated to total \$720,000, is being used for equipment, etc., and the rest will be added to working capital.

The remaining 70,000 shares represented a sale of 25% of the holdings of the 73 stockholders who were hitherto sole owners of the business. However, the deal in question seems in no sense to have been a "bailing out" operation, since that group still owns 60% of the company's outstanding stock.

• Prospects—Westby is optimistic in discussing Seismograph Service's future picture. Significant are (1) the estimate that the oil industry has lately been spending about \$4,500,000 monthly for seismograph prospecting, compared with \$39,000,000 in all of 1945, and (2) the industry's reported belief that it must undertake much exploratory work if, as it would like to, it maintains proved reserves at 14 times the present annual rate of production.



PAY IT WITH FLEURINS

In Detroit, Brooklyn's Edward J. McCarthy (left), president of Florists Telegraph Delivery Assn., congratulates John Hunt of Scotland, head of the new International Telegraph Florists, Inc. The new operation boasts a unique feature: a monetary unit of its own—the fleurin—created for overseas floral trade to eliminate headaches arising from fluctuating foreign currencies. Pegged to the Swiss franc, a fleurin roughly equals a U.S. quarter. Member florists' accounts will be adjusted monthly for currency variations at clearinghouses in Zurich, London, and Detroit.

MARKETING

Power for Farms

Electric companies plan long-range program to boost rural sales by promotion of diversified farm prosperity.

The neck-and-neck efforts of private electric power companies and the Rural Electrification Administration (BW—Sep. 7'46, p19) are expected to give every farm in the country access to electric current within three years, though, of course, not all of them will be connected to it.

Business managed companies (as they like to call themselves) recognize this as the end of their horizontal expansion. At the moment their over-burdened power lines could stand little expansion of any kind (BW—Sep. 14'46, p31), but that is a temporary condition that will be remedied as equipment becomes available. After that, long-range interests make further expansion as important as ever, but it will be vertical, that is, increasing rural electric power sales by more intensive cultivation within existing territories.

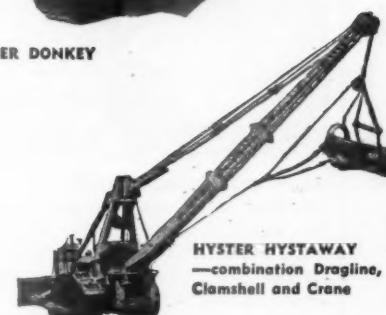
• **Program Dusted Off**—The utilities have long observed that as the total income of the area they serve increases, sales of electricity increase; the rule-of-thumb is that they can expect to receive 1½% to 1¾% of their territory's total income. Thus a long-range program to boost farm income is obviously to their interest.

That is the thinking behind the present step-up in the activities of the farm section of Edison Electric Institute, a trade association. The institute has long had a rural program, but early this year it dusted it off, did some reorganizing, and hired as rural service manager Roy W. Godley, a former county agricultural agent who for ten years had directed the highly successful rural program of Monongahela Power Co., Fairmount, W. Va.

Now the farm section is teaching member companies how to use all the old promotions, as well as some new ones, to further successful farming practices in their territories: youth activities, contests, forums, advertising and publicity, personal conferences, farm surveys, etc. It works alongside government agencies, such as the Soil Conservation Service, experimental stations of land grant colleges, and state agricultural extension services, supplementing but not supplanting their efforts.

• **Tidewater Example**—Newest farm section activity is the agricultural de-

HYSTER Tractor Equipment DOES MORE WORK



PIONEERS IN MATERIALS
HANDLING EQUIPMENT

HYSTER COMPANY
World's Largest Manufacturer of Tractor Winches
2907 N. E. CLACKAMAS, PORTLAND 8, OREGON • 1807 NORTH ADAMS ST., PEAIR 1, ILLINOIS

SCHELM Polar-Freez

*Yesterday's Pioneer...
TODAY'S LEADER*



Forty years of manufacturing experience in the fabrication of metal products, plus an enviable record of pioneering in the quick-freezing and cold storage of foods, combine to assure outstanding quality and a brilliant future for the Schlem Polar-Freez. Sold under exclusive franchises by leading stores and dealers.

**SCHLEM BROTHERS, INC.
EAST PEORIA, ILLINOIS**

"BUILDING BETTER PRODUCTS FOR 40 YEARS"

~~THE GUESS IS OUT WHEN YOU
MEASURE YOUR VALUABLE
STORED LIQUIDS WITH~~

LIQUIDOMETER
Tank Gauges

100% AUTOMATIC
FOR GAUGING
LIQUIDS
OF ALL KINDS

NOTES FOR
COMPLETE
DETAILS

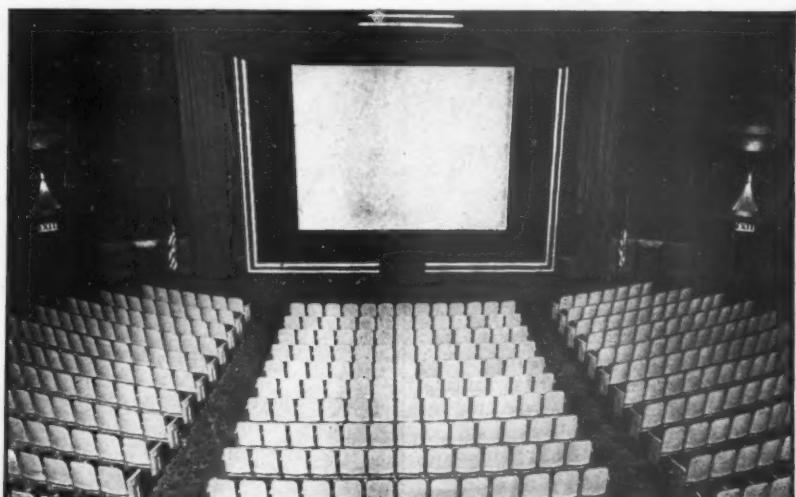
LIQUIDS WORTH STORING ARE WORTH MEASURING*

LIQUIDOMETER CORP.
38-12 SKILLMAN AVE., LONG ISLAND CITY, N.Y.



THE POSTWAR SHOW GOES ON, READY OR NOT

Philadelphia crowds thronged to the opening of the new Goldman—called America's first major postwar theater—undaunted by the fact that workmen were still busy (above left), had two weeks of construction to go. Despite its unfinished state, the lush auditorium (below) appeared completely equipped for the customer's comfort. Features included an oversized screen, doeskin-covered walls, a scientific color scheme. Best of all the seats slip back six inches to allow plenty of room for even over-sized passersby (above right).

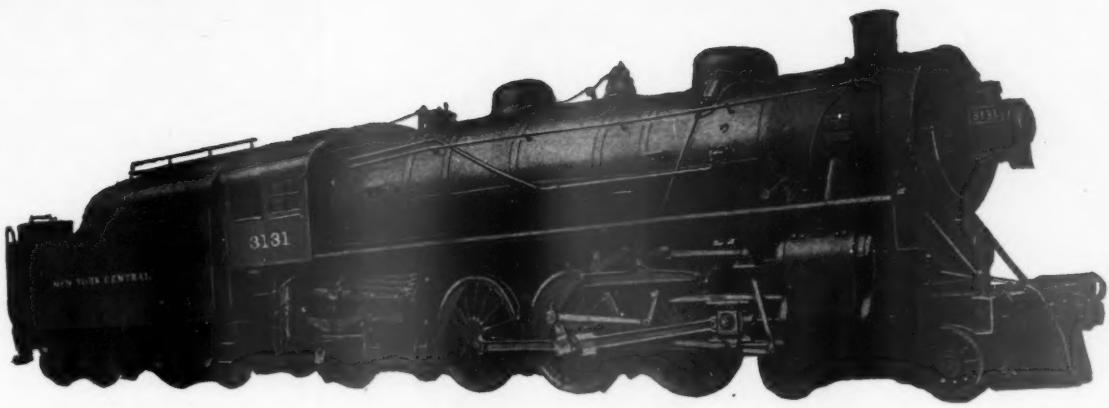


development committee which was organized Sept. 1. Under its guidance, member utilities' work will be long-range, indirect, often intangible; they may not initiate a single program that is actually new. Here's a typical example:

Tidewater Power Co. of Wilmington, N. C., realized that though power sales were highly satisfactory in its one-crop farming territory as long as tobacco sold for 50¢ to 60¢ a pound, the bottom would drop out of its business if tobacco should drop to 10¢, as it had been known to do. Tidewater hired an ex-

county agent who found that the state agricultural college and extension service were already concerned with promoting dairying for diversification, and promptly lent a hand in the program. Incidentally, Godley estimates that within the next two or three years about 100 of the 170 E.E.I. members, not all of whom serve rural areas, will have in their employ such full-time agricultural specialists.

• Diverse Activities—The farm section considers that an electrical utility is in a peculiarly favorable position for such



LABORATORY ON WHEELS

Old 3131 was a locomotive of destiny. Its boiler tubes were test tubes of progress. It was a laboratory on wheels . . . which contributed importantly to this century's greatest advance in the science of burning coal.

The story started in 1914. It was then that the Locomotive Pulverized Fuel Co., later to become part of the Combustion Engineering organization, began experiments with pulverized coal for firing locomotives. Instead of feeding coal by shovel, or stoker, the coal was first ground to a fine powder, then blown through a nozzle into the fire-box.

These experiments on "3131" and other locomotives indicated that stationary boilers might be more adaptable to the requirements of pulverized coal firing. Accordingly several trial applications were made, and one of these, completed in 1918, proved to be the turning point. It resulted in the building, two years later, of the world's first power station designed for the exclusive use of pulverized coal. Engineers journeyed from all over the world to see this plant and to observe the firing of its boilers with coal ground as fine as flour and burned in suspension like a gas. From then on the trend to pulverized coal firing was under way.

Among the immediate gains were larger and more efficient boilers capable of being operated at higher ratings, greater continuity of service, ability to use a wider range of coals and generally improved operating conditions.

Today, wherever coal is burned, pulverized coal is the generally accepted method of firing the largest power station boilers and is widely used for boilers in the middle-sized range. The total contribution of pulverized coal firing to the national economy cannot be calculated but it is conservative to say that in coal savings alone it amounts to millions of tons annually.

Combustion Engineering was primarily responsible for the commercial development of pulverized coal firing, but we must share the credit with "3131" — the old iron horse that led the way.

A-992

Combustion Engineering



200 MADISON AVENUE, NEW YORK 16, N. Y.

C-E INSTALLATIONS COVER ALL STEAM REQUIREMENTS FROM
30 HORSEPOWER BOILERS TO THE LARGEST POWER STATION UNITS

lled
men
e its
ped
kin-
six
ght).

state
serv-
pro-
and
ram.
that
bout
t all
e in
atural

tion
is in
such
1946



Farm Freshness for City Shoppers

It's a long trip from farm, lake or ocean to your table...and foods must be protected every step of the way.

They're easily spoiled by faulty refrigeration, odors and other hazards met in packing, storing and shipping.

To insure adequate protection, freezing and storage installations are made with Flintkote Hydralt* Insulation Coatings under and over all types of insulation . . . in railway refrigeration cars, in refrigerated spaces

aboard ships, in warehouse storage facilities, and in deep-freeze lockers.

Flintkote asphalt emulsion coatings protect exposed surfaces from weather and corrosion. They seal insulation and stored products against moisture, air-infiltration, evaporation and absorption. They are odorless, tasteless and non-toxic.

Thus Flintkote helps put fresh food on your table for better eating and better health.

*Reg. U. S. Pat. Off.

Flintkote makes many things

More than 100 kinds include automotive felts, paperboard products, expansion joints and sealers for concrete surfaces, building materials. For special needs our technical staff is available.



THE FLINTKOTE COMPANY, 30 Rockefeller Plaza, New York 20, New York; 55th and Alameda Streets, Los Angeles 54, California; 25 Adelaide Street East, Toronto 1, Ontario.

FLINTKOTE

BUILDING MATERIALS • PRODUCTS FOR INDUSTRY • PAPER BOXES & CONTAINERS



promotions: It knows the needs of its area and can take the lead in serving it; its detached relationship from government groups often makes it better able than they to enlist the support of business and professional groups; it has the financial means to provide the services of specialists for furthering certain programs, such as recreation, farm engineering, soil conservation, crop diversification, reforestation, and community planning; and, in addition, it has access to effective publicity and advertising media.

Other farm section activities are diverse. They include, for example, preparing training manuals for power company employees who are contacting farmers; preparing short courses in farm electrification which answer farmers' questions on basic problems such as adequate wiring and electric water systems; working with electric farm equipment manufacturers to help set up satisfactory local sales outlets; helping to finance agricultural research.

• Self-Protection—All this, of course, is not philanthropy nor mere public relations, it is a well-planned long-range program that is designed to boost total community income in order to protect the utilities' investment in lines and power plant.

SEARS ADDS A CATALOG

Sears, Roebuck & Co. this week began mailing to customers its newest catalog, a mid-season fall book. Designed to fill the gap between the June appearance of the big general fall-and-winter catalog and the annual Christmas book, issued in late October, the new book offers 256 pages of fall merchandise. Sears expects to make the mid-season book an annual addition to its catalog list.

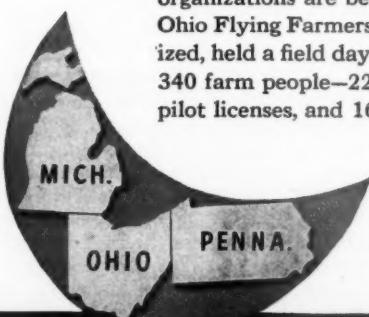
The 1946 fall book is distinguished by the reappearance in its pages of such items as automobile tires, wrist watches, radios, men's overcoats, and aluminum roofing. Also offered is a wide selection of women's and children's clothing, including several pages of mouton lamb fur coats. Long-absent pure dye printed silk crepe is back at \$5.50 a yard, and plain silk crepe at \$4.95. New in the catalog is printed rayon velvet yard goods at \$2.75 a yard.

Still missing from the catalog are such standard mail-order lines as refrigerators, sewing machines, washing machines, sheets and pillowcases, lawn mowers, millwork, as well as men's shirts and pajamas.

September books from Spiegel's and Alden's went out to customers early this month, featuring back-to-school and other seasonal items, as well as some scarce merchandise not listed in their big books.



● Progressive, air-minded farmers of *The Golden Crescent* are trading in the Old Gray Mare for a stream-lined plane. Throughout the three states—Michigan, Ohio and Pennsylvania—rural flying organizations are being formed. The Ohio Flying Farmers, recently organized, held a field day which attracted 340 farm people—222 of whom hold pilot licenses, and 160 of whom own



The Golden Crescent

"Your distribution may be national, but your selling is always LOCAL"

Copyright 1946, Capper-Harman-Slocum, Inc.

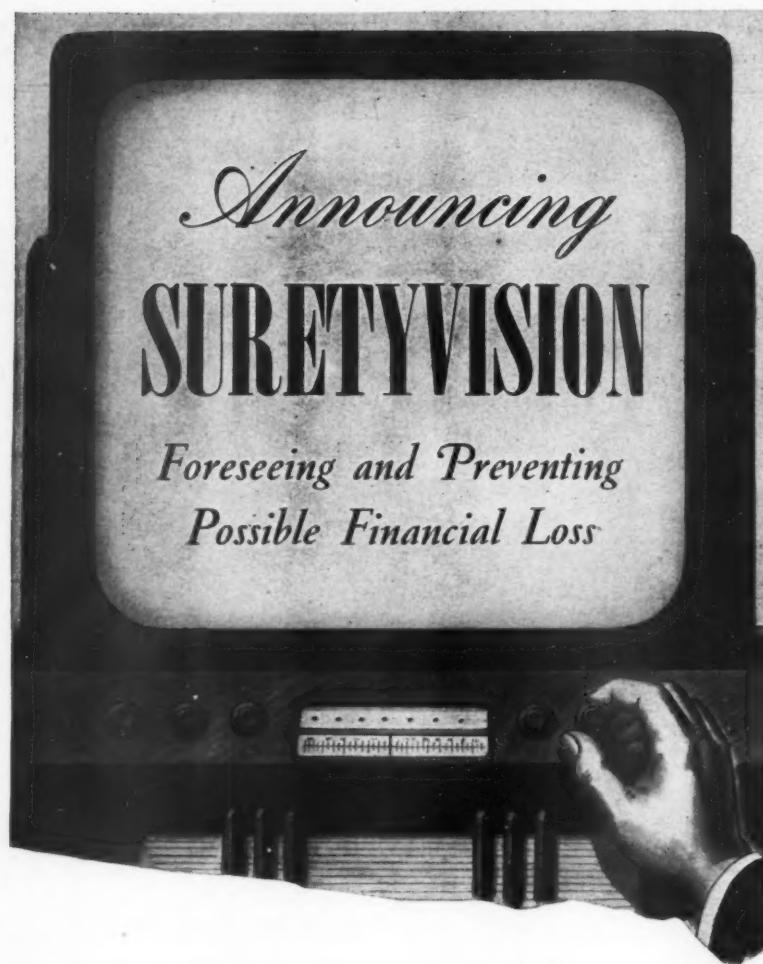
OHIO FARMER • MICHIGAN FARMER • PENNSYLVANIA FARMER
CLEVELAND DETROIT HARRISBURG

their planes. This is the largest farmers' flying club in the country.

These facts give you one angle on the alert type of people—and the type of market—you find among the three million farm folks of *The Golden Crescent*.

A market for airplanes, of course—but also a concentrated, able-to-buy market for almost anything you can name in the way of goods that add to modern comfort, convenience and efficiency. Right now, with money to spend, these farm people want a great variety of branded, advertised goods which war restrictions have denied them.

Don't overlook so lucrative a market as *The Golden Crescent*! Here's a place to tell your sales story, thoroughly and economically, using *only three publications*. These well-read, well-trusted magazines—**MICHIGAN FARMER**, **OHIO FARMER** and **PENNSYLVANIA FARMER**—reach 7 out of every 10 of these 3,000,000 farm folks in *The Golden Crescent*.



UNLIKE TELEVISION, which deals with things that are happening and are visible to the naked eye, **SURETYVISION** deals with things that will be visible only in the future although they may be occurring now—such as losses arising from employee dishonesty.

Like Television, **SURETYVISION** requires special talent, knowledge and experience—the type provided by the American Surety organization for more than 60 years. Employers' risks must be scientifically analyzed so that the Surety Bond selected will provide the exact protection needed by each business or financial establishment, institution or other employer.

Call our agent or your own broker for information as to what **SURETYVISION** can do for you. This protection has never been so complete or so inexpensive as now.



**AMERICAN SURETY COMPANY
NEW YORK CASUALTY COMPANY**

Affiliate:

SURETY FIRE INSURANCE COMPANY
100 Broadway New York 5, N. Y.
Dependable as America

Radio Profiles

New methods of analyzing air shows pretest response, provide data for advertisers on show's probable audience.

The radio broadcasting industry, having cuts its teeth on quantitative research, is turning its attention to qualitative studies. Henceforth a program is likely to be scrutinized not only for its rating—a count of listeners by such agencies as C. E. Hooper, Inc.—but for its "profile," which measures listener response and offers advertisers information on the characteristics of the show's probable audience.

- **Industry Trend**—Columbia Broadcasting System and McCann-Erickson, Inc., are now using a Program Analyser devised by Dr. Frank Stanton, CBS president, and Paul Lazarsfeld, radio research director for the agency. Audience Research, Inc., of which George Gallup is president and principal stockholder, for several years has pretested movies with a machine called the Hopkins Televote, which would be equally adaptable to radio if the firm were not so busy with such movie clients as M-G-M and R.K.O.

Last week the National Broadcasting Co. formally announced its adoption of a program-testing system developed by Horace Schwerin of Schwerin Research Associates.

Schwerin's method, like its CBS counterpart, is not intended to replace creative talent in determining radio programs, but to guide it. The system is designed to indicate, through pretesting a sample audience's reactions, (1) whether a show will be popular enough to warrant its production, (2) how it can be improved, and (3) the time of day it will reach the most listeners of the desired type.

- **G.I.-Tested**—The system has been eleven years in the making. Back in 1935, Schwerin, then research director for a Manhattan advertising agency, worked on the problem of program analysis with Stanton and Lazarsfeld, though his work subsequently took a different tack from theirs. During the war, as an Army captain, his food conservation studies for the Quartermaster Corps attracted much attention. Later he had charge of pretesting training messages—known as "G.I. commercials"—on radio programs to be beamed to overseas troops. This provided an excellent opportunity for perfecting his system.

After his release from the Army early this year, Schwerin teamed with NBC for further experimental work, and in July signed with the network to test

two of its shows a week for the rest of 1946. Next January NBC advertisers will be urged to buy the service through Schwerin Research Associates.

• **Group Scoring**—In Schwerin's system guinea-pig audiences listen to a recording of a program and mark their reaction (typically, "good," "fair," or "poor") on a score sheet at predetermined intervals, indicated by a number flashed on a screen. Later these score sheets are correlated and the resultant group reaction charted on a graph. Test audiences fill out anonymous questionnaires attached to their score sheets, indicating, among other things, their age, sex, marital status, occupation. These are sorted out so that the final audience sample is what Schwerin considers a true cross-section of the program's actual audience when it is on the air.

In a group discussion after the test, the sample audience is asked what it disliked or liked, and why. But since audiences are generally surer of what they like than of why they like it, results of these voting sessions are tempered by producers' experience, and it takes an 80% vote on any point to carry much weight.

• **Automatic Recording**—When Schwerin's service is offered commercially next January each person in the test audi-



SERVICEMEN SERVED

Veterans who have worried along on a pair of civilian pants and a military blouse got a break last week when Gimbels' New York store (above) put on sale the first of a million suits made of surplus military wool fabrics allocated under a special CPA program. Manufacturers received the wool upon agreement that they would turn it into suits in four months. Suits are shipped as "stock replacements" to retailers who send in names and serial numbers of veterans to whom they have sold suits at less than \$30.

BUSINESS WEEK • Sept. 21, 1946

A flexible FLEXIBLE COUPLING

All in One Piece

THE compact, one-piece Lord Flexible Coupling embodies the rubber bonded-in-shear principle to give the most efficient possible combination of strength with shock absorbing resilience.

Lord Flexible Couplings save motors and machines. They increase and improve production. Less noise and less vibration mean better workmen, less fatigue, and result in more work per man-hour.

Into every Lord Flexible Coupling is built the scientific knowledge developed through a generation of pioneering the field of vibration control. The Couplings are made in seven sizes, for any direct drive application, from 1/16 to 1 h.p. Write for Bulletin 200-A.

What Lord Flexible Couplings Will Do for You

- 1 Absorb torque to approximately 20°, between motor and driven unit.
- 2 Accommodate angular or parallel misalignment.
- 3 Prolong the life of bearings, on motor and machine.
- 4 Reduce installation costs, by eliminating necessity for precise alignment.
- 5 Absorb the strain of shock loads—starting, stopping, stalling—throughout the assembly.
- 6 Absorb the force of end and radial thrusts.
- 7 Provide for even flow of power from motor to unit in work.
- 8 Reduce noise by eliminating transmission of noise through the shaft.
- 9 Give protection to the driving motor from suddenly imposed excessive overload.

Every genuine Lord Mounting carries the name "LORD" embossed in the rubber or in raised letters on the forgings.

IT TAKES BONDED RUBBER *In Shear* TO ABSORB VIBRATION

LORD MANUFACTURING COMPANY
ERIE, PENNSYLVANIA

SALES REPRESENTATIVES
NEW YORK - - - 280 MADISON AVE.
CHICAGO - - - 520 N. MICHIGAN AVE.
DETROIT - - - 7310 WOODWARD AVE.
BURBANK, CAL. - - - 245 E. OLIVE AVE.
WASHINGTON - - - 14th & G STREETS, N. W.

CANADIAN REPRESENTATIVES
RAILWAY & POWER ENGINEERING CORP., LTD.
TORONTO, CANADA

Originators of Shear Type Bonded Rubber Mountings

TAILORED TO YOUR NEEDS



SUNROC *Water Coolers*

THE SUNROC "STANDARD"—Model NM2B—is one of the most popular Sunroc Water Coolers for business, industrial, and institutional applications. Its 10-gallons-per-hour capacity is more than ample for most requirements.

Leaders of business and industry choose Sunroc Water Coolers on one decisive factor: Lowest-cost-per-year. That sums-up the whole Sunroc story of built-in dependability, efficiency, economy, and long life.

The post-war line of Sunroc Water Coolers is engineered, styled, and built to give lasting, money-saving satisfaction. Most AC and DC models . . . including coolers tailored to your specific needs . . . are available now. Write Dep't BW-9, Sunroc Refrigeration Company, Glen Riddle, Pa.



"There's nothing like a cool drink of water"

SUNROC *Water Coolers* GLEN RIDDELL, PA.



FOR PARKING RELIEF, PAY AS YOU GO

Customers who come to settle up their light bills with Connecticut's United Illuminating Co. don't have to slow down New Haven traffic while they look for a parking space; they just drive up to the attractive cashier booths (above) and pay. Designed by Leo Caproni, New Haven architect, the booths are connected by telephones to the main building. And customers in cars, jeeps, and motor scooters, and on horseback—even one old-timer had a horse and buggy—all find them handy for paying their bills.

ence will be provided with a machine, called a Reactocaster, invented by Paul Schwerin (Horace's father). The listener indicates his reaction by pushing a lever, instead of scoring with pencil and paper. The reactions will be automatically recorded in another room on punch cards, which will be run through tabulating machines to correlate the data.

This mechanization will enable Schwerin to deliver a profile of a program, from a test audience's reaction to the rehearsal, within 24 hours. Fees for Schwerin's service have not been fixed yet, but will probably be about \$300 for each test of a quarter-hour program, \$500 each for half-hour programs. The service will be sold only in 13-week cycles.

• **Tip to Advertisers**—So far NBC is saying nothing about any conclusions it may have drawn on radio program analysis from Schwerin's method. The inventor's only publicly announced opinion, based on pre-NBC experience, is that commercials need not be unpopular. The audience resents them most when they interrupt the mood of the program; commercials blended into the dialogue sometimes register greater popularity peaks than the program itself.

NBC obtains its test audiences by invitations broadcast over its New York station, WEAF, with a free tour of Radio City as an inducement. But the bait appears unnecessary; many persons do not even take the tour. What seems to lure them is the universal pride in being asked to give an opinion, not to mention the chance to talk back to the radio and criticize its commercials.

FOR WIDER DISTRIBUTION

Sherwin-Williams Co. last week announced that its two new nonpaint specialties, Weed-No-More (2,4-D) and Pestroy (DDT), will be sold through drug, department, and grocery stores and other suitable retail outlets, as well as through hardware and other stores which have Sherwin-Williams paint franchises.

Another departure in the company's distribution policies is that the new products will be sold also by its six wholly owned subsidiaries, Acme Lead & Color Works, W. W. Lawrence Co., Lowe Brothers Co., John Lucas & Co., Inc., Martin-Senour Co., and Rogers Paint Products, Inc.

Sherwin-Williams has already tested this institutional (as opposed to franchise) distribution on Kemtone, the resin emulsion wall finish which it introduced five years ago, and of which it sold 35,000,000 gal. during the war years. This year the company's non-paint specialties are expected to account for 25% of its sales.

PREFAB CAMPAIGN

Manufacturers of prefabricated houses, victims of over-enthusiastic expectations and subsequent disappointment on the part of the public, are now about to buy space to resell their wares.

In November, the Prefabricated Home Manufacturers' Institute, representing 60 firms, will launch a rather modest advertising campaign to con-

ted
hey
ths
ths
ars,
orse

an-
pe-
nd
ugh
res
well
res
int

y's
ew
six
ad
o.,
o.,
ers

ed
in-
he
n-
it
var
n-
nt

ed
x-
it-
re
ir

ed
e-
er
n-

16



"I framed that x-ray picture because it saved me \$65,000"

... Radiography eliminated internally unsound castings...saved \$50,000 in machining . . . showed foundry how to salvage \$15,000 worth of rejected castings.

You might want to frame some of your x-ray pictures if you dug out all the facts and figures.

When you balance the relatively small cost of radiography against the actual sums realized through increased production and lowered costs, you see in black and white that . . .

... Radiography, applied at the right time and

place, can mean the difference between getting into sound production fast and fighting delay . . . between an acceptable job and customer rejections . . . between a fair profit and heavy losses.

Your local x-ray dealer will be glad to discuss the economic side of radiography with you . . . will suggest additional ways to make radiography pay . . . in better design . . . lighter weight products . . . higher quality . . . more sales appeal. Or write to

**Eastman Kodak Company, X-ray Division
Rochester 4, New York**

Radiography

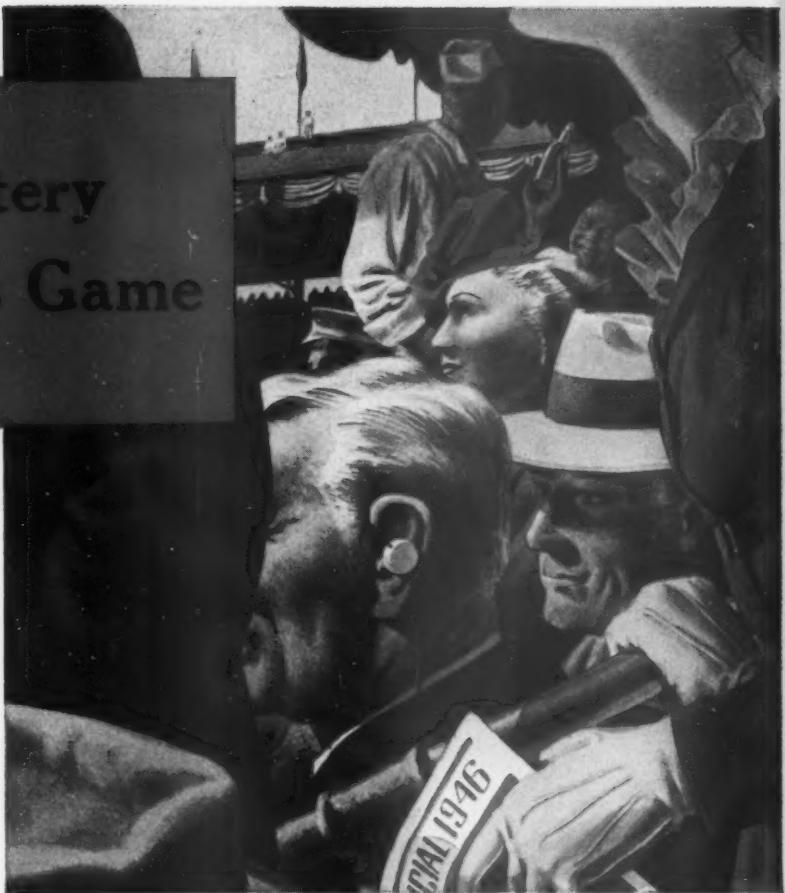
...another important function of photography

Kodak

The Battery For Today's Game



An Important
Mallory Development
Adds Remarkable
Comfort and Convenience
to Modern Hearing Aids



THE batter slams out the ball... the umpire yells, "Safe!"... the crowd roars... and to the man in the stands who is hard of hearing, the sounds are clearer than ever before.

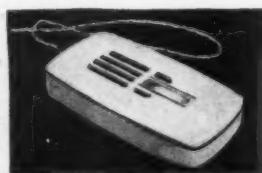
He is listening with a modern hearing aid—an instrument unbelievably light, small and inconspicuous. One that gives him increased power for better hearing under all conditions... that requires no burdensome wires or pack... that tucks easily into his coat pocket. He needs no separate battery pack.

AN amazing new battery has made this hearing aid possible. It is the Mallory Dry Battery, *the original mercury battery*, first developed for the Signal Corps, but now converted to peacetime use. Inexpensive in terms of service life, it is also the smallest "A" battery ever sold. It is less than one-third the size of conventional

dry cells, yet it possesses greater capacity. Moreover, its power output is remarkably constant, and it needs no periods of rest. It will not deteriorate in storage. High temperatures and humidities have no appreciable effect on it. Its foolproof structure makes it completely safe.

ARE you planning to manufacture a battery-powered device demanding minimum size and weight? Mallory's battery building "know how" is available to you—to help streamline your product, make it more serviceable. It is an experience backed by thirty years of important contributions to electronics and metallurgy—an experience that has made the magnesium copper sulphide rectifier, the interval timer switch, the dry electrolytic capacitor, among other things, standards of their respective industries.

War-famous as the heart of the Handie-Talkie, the Mallory Dry Battery today furnishes "A" power for most of the modern hearing aids.



MALLORY
CAPACITORS—RESISTORS—RECTIFIERS—VIBRATORS—SWITCHES
OTHER PRECISION ELECTRICAL AND ELECTRONIC PARTS

SERVING INDUSTRY WITH ELECTRICAL CONTACTS—RESISTANCE WELDING ELECTRODES—
SPECIAL NON-FERROUS ALLOYS—SHAFTS—
MALLORY DRY BATTERIES... *The original mercury batteries*

P. R. MALLORY & CO., Inc., INDIANAPOLIS 6, INDIANA

ver,
eds
age.
able
ely

red
ry's
—to
ble.
ant
erri-
ide
ytic
heir

vince the public that prefabs can be "beautiful, comfortable, individualized homes that offer more for the buyer's money than the age-old type of house built individually on the site."

The institute doesn't underestimate what it's up against: the public's slowness to accept a new idea and its notion that all prefabs must necessarily look alike; opposition by local building contractors, architects, lumber retailers, and bankers; and conflict with building codes (BW-Mar.23'46,p41).

Media chosen to woo these groups include Better Homes and Gardens, Prefabricated Homes, Banking Magazine, U. S. Savings and Loan News, National Real Estate and Building Journal, and Building Standards Monthly.

FLOUR BAG SHORTAGE

Although flour millers welcomed the Sept. 1 termination of the 80% wheat extraction order, it has them on the spot for packaging.

Most mills had regulated their purchase of bags for the GR ("government regulation") flour on the assumption that the order would be rescinded in the not-too-distant future, so they are not troubled by large inventories of now-outdated bags. But they are determined to get established brands and familiar bag designs back into circulation as quickly as possible, and bag manufacturers are protesting under the pressure of trying to supply everybody with new bags at once.

A number of mills used up their supplies of bags for regular flour last March while waiting for delayed deliveries of GR bags, and very few have sizable inventories of their regular-brand bags.

P. S.

United-Rexall Drug Co. continues merrily on its expansion program (BW-Jul.13'46,p8); it has just bought three Sarasota (Fla.) drug stores from Frank G. Berlin, for \$450,000.

Bamberger & Co., Newark (N. J.) department store, cultivated California apparel manufacturers recently with a \$13,000 dinner at Los Angeles' Ambassador Hotel, in anticipation of a store-wide California promotion next spring.

Reynolds Pen Co.'s first annual financial statement, issued last week, shows nearly \$3,000,000 profit for nine months' actual production and distribution. The company claims to have orders on hand for over a million of its new \$3.85 Rocket model (in addition to the \$5.85 "Packet" and the \$12.50 "400" models) and a production rate of 75,000 pens a day.

Stark's, a Rochester (N. Y.) florist, advertises that it will deliver flowers, on credit, to anyone listed in the Rochester telephone book.



HAVING A WONDERFUL CRIME!

After every war there is a wave of crime. Not only murders and bank robberies but the less dramatic check crimes like forgery and check-raising. These are not so newsworthy but they cost Americans millions of dollars a year—hundreds of millions. That's why your check disbursements deserve the best protection there is.

It is difficult—almost impossible—to alter checks written with a Protectograph. Not only the amount, but the company's name, too, are indelibly and automatically shredded into the paper.

The Protectograph, manufactured exclusively by The Todd Company, is easily and efficiently operated, mechanically guaranteed, and liberally bonded for protection. Can you afford to have your disbursements less carefully protected? Send in the coupon for complete information. No obligation, of course.

A TODD PROTECTOGRAPH

CHECKWRITER:

- speeds disbursements
- saves man-hours
- protects against check-raising
- provides greater efficiency
- creates business prestige



ROCHESTER
SALES OFFICES IN
NEW YORK
PRINCIPAL CITIES
DISTRIBUTORS THROUGHOUT THE WORLD

THE TODD CO., INC., Rochester 3, N. Y.

Please send me more information about the Electric Protectograph. I understand this entails no obligation on my part whatever.

Company _____

Address _____

City _____ County _____ State _____

By _____ Date _____

BW-9-21-46

You'll
LAUGH & LEARN



... and come back for more
when you read ELLIOTT'S
Free set of business books
from cover to cover!



Like thousands of officials in America's largest corporations, you'll read this phenomenal package of business books with real enthusiasm!

"The Sterling Elliott Family" and "Unscrewing the Inscrutable" provide perfectly proportioned amusement and inspiration.

The new "Elliott Addressing Machine Catalog" is more than the name implies. Here is a divertingly-written, fact-packed volume replete with tried and true suggestions for meeting tomorrow's business needs. You'll learn why so many firms prefer Elliott to any other automatic addressing system.

To obtain your **FREE** set of three books, simply write, on your business letterhead, to the Elliott Addressing Machine Company, 151 Albany Street, Cambridge 39, Massachusetts.



PRODUCTION

Chemical Industry Charts Gains

Widening of research and meeting of challenge left by wartime expansion of plant capacity are reflected in developments reported at national sessions of the American Chemical Society.

Research and the chemical industry have long been inextricably bound up with each other, but the postwar era has confronted that industry's researchers with unprecedented problems. The industry has been challenged not only by an expanding demand for chemicals and their derivatives but by the fact that a large, war-created plant capacity—such as was never available to it before—has been placed at its disposal.

That the chemical industry is meeting the challenge and making the most of its opportunities was evidenced last week in Chicago, at the national meeting of the American Chemical Society. Among the industry's reported accomplishments are numerous new chemicals and processes, many of which are utilizing war-built plants. Research is being vastly enlarged, and the industry is looking for more manpower.

- **Synthetic Fuels**—Petroleum derivatives are receiving a great deal of attention, as is the production of synthetic petroleum from natural gas. Out of synthetic petroleums, the industry has developed such products as water-soluble and water-insoluble lubricants, synthetic gasolines with high octane ratings, and synthetic diesel fuels.

Further advances in the production of higher quality plastics and finished products made from resin were pre-

attack—which, it is predicted, will in the very near future form the basis for synthetic lubricants, extracting agents, and solvents in chemical processing, synthetic rubbers, protective coatings, wood preservatives, and plastics (BW Apr. 27 '46, p20).

The seventeenth most abundant element and known for years as the basis for insecticides and refrigerants, fluorine received its biggest boost in production as a result of the atomic bomb program during the war. The new research-developed uses for the element will utilize that production potential.

- **New Fluorocarbons**—Fluorine, a relative newcomer to chemical research, forms the basis for new fluorocarbons—compounds having high heat stability, resistance to oxidation and to chemical

Further advances in the production of higher quality plastics and finished products made from resin were pre-

Road Tests Go Indoors for Greater Accuracy

Road testing can be done more accurately indoors, in the opinion of Gulf Oil Corp. research engineers, by utilizing their newly developed road test dynamometer which eliminates the uncertainties of actual road testing while retaining the basic factors required for accurate evaluation of gasoline performance.

Actual driving conditions are simulated by pushbutton controlled devices. Air blasts are delivered against the car to duplicate wind resistance. Artificial temperatures are obtained with air-conditioning apparatus. The front wheels are held in chocks while the rear wheels run on rollers connected to a dynamometer which can be loaded to reproduce conditions of grade or extra weight.

The engineers contend that more accurate testing is done because the device eliminates changing traction conditions and temperature altera-



tions, and allows the "driver" to concentrate on performance without worrying about traffic and street noises. All he has to do is to operate the car and concentrate on the instrument board outside which records the data obtained.

dicted by chemists of the Hercules Powder Co., Wilmington, Del., who stated that exact determination of the resin acids found in pine-tree oleoresin was now possible.

Knowing the characteristics of these acids, and knowing what takes place during subsequent processing operations, will give chemists a chance to produce better quality products based on the natural material, of which a billion pounds are used annually in this country.

• **Improved Papers**—New cellulose acetate butyrate melt coatings studied at the Eastman Kodak Co., Rochester, N. Y., will make possible improved wrapping papers, book and magazine covers, washable wallpapers, and better window shades. Depending on composition, the melt coatings show marked improvements in appearance, water proofness, wet strength, and dimensional stability.

Lignin, a waste material to the paper industry, is now being used as a reinforcing agent in the preparation of high-strength, lightweight rubber articles, capable of being colored. The lignin is mixed with either synthetic or natural rubber in latex form, and according to the West Virginia Pulp & Paper Co., the process can be readily adapted to most plants now making synthetic rubber in this country.

• **Cause and Effect**—Lightness in weight is possible because lignin is only 72% as heavy as carbon black, the usual reinforcing pigment. Tires are 7% lighter, and articles made with heavier reinforcing pigments, such as shoe soles, are 35% lighter. It was also stated that lignin-reinforced rubbers were easier to mill.

A newly developed color agent to be processed into paints, dyes, and inks will improve their "light-fastness," according to chemists of the Polytechnic Institute, Brooklyn. The new color compound is said to cost less than those in use at present. A corollary development announced by the institute's chemists was a method by which a color can be made so that successive batches will always give the same results.

• **Nutritional Advances**—Food, nutrition, and vitamin chemistry have also shown marked advances. For example, studies of European starvation victims revealed that a high protein diet, made from powdered milk and powdered eggs, was an important factor in reducing convalescence time. The method provides swift nutrition in highly assimilable form.

Synthetic production of the amino-acids, which are described as the protein-building blocks vital to nutrition, was discussed by C. M. Suter and Sydney Archer of the Sterling-Winthrop Research Institute. These acids are

Make this simple test!..

**COMPARE YOUR
LETTERHEAD WITH
THE FIRST TEN
YOU GET TODAY!**



Time for a NEW letterhead?

If your present letterhead is not the up-to-date, impressive representative of your business that it should be, let us send you a copy of "Your Next Letterhead".

This Hammermill idea-book provides a standard by which you can appraise your letterhead, decide whether it should be improved or redesigned entirely. Then it gives the essentials of modern design, and 26 examples of good arrangements of type, trade-marks, emblems, etc. Just send the coupon for a free copy.

And here's a reminder: good paper is an essential of a good letterhead, but it need not be expensive paper. Hammermill Bond provides the right quality at moderate cost.



**SEND FOR THIS
FREE BOOK!**



Companion papers for office use include Hammermill Mineo-Bond and Hammermill Royal Blue.

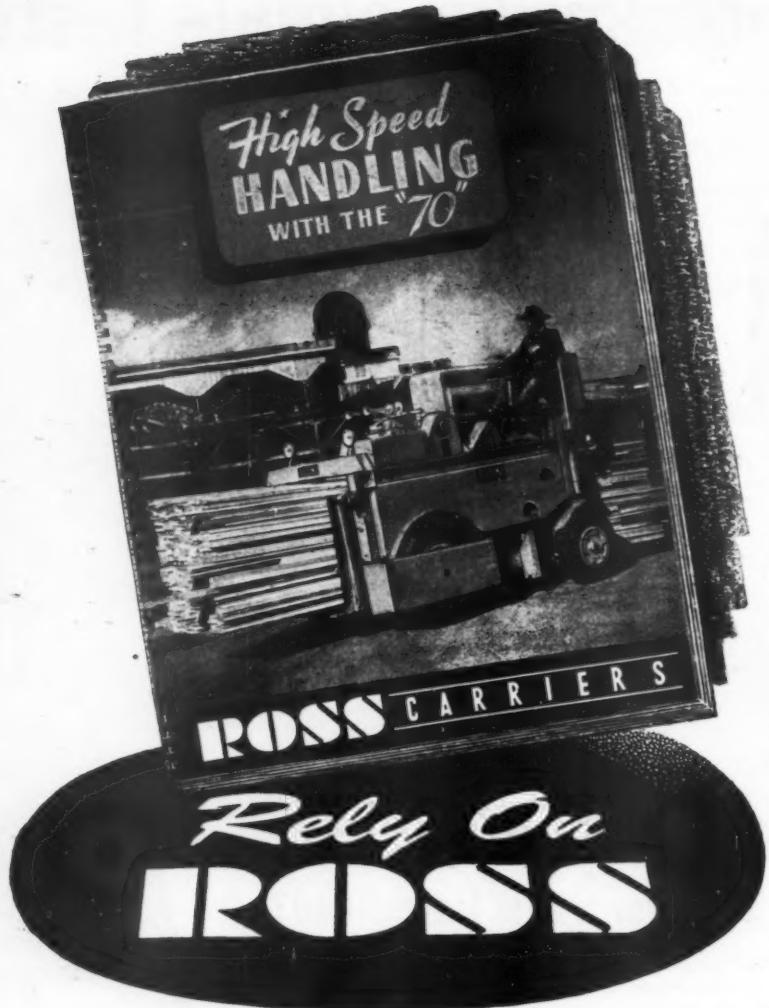
Hammermill Paper Company, 1455 East Lake Road, Erie, Pennsylvania
Please send me—FREE—a copy of "Your Next Letterhead" (check here if you'd like a sample book showing the color range of Hammermill Bond for letterheads).

Name _____

Position _____

Please attach to, or write on, your business letterhead

BW 9-21



to point the way to a new high standard of materials handling in your industry!

Here's a fully-illustrated 40-page book showing how a major industry cuts handling costs through use of ROSS Straddle Carriers and ROSS Lift Trucks—and how these heavy duty machines—The ROSS System of Unit Load Handling—can effect substantial savings in your plants... Send for your copy of The ROSS "70" BOOK — ask for Bulletin BW-96.

THE ROSS CARRIER COMPANY
300 MILLER STREET, BENTON HARBOR, MICHIGAN, U. S. A.
DIRECT FACTORY BRANCHES AND DISTRIBUTORS THROUGHOUT THE WORLD

Drug Licensing Flayed

Compulsory licensing of all drug patents was attacked at the American Chemical Society meeting last week when Dr. T. G. Klumpp, president of Winthrop Chemical Co., asserted that such legislation would threaten America's lead in chemical and pharmaceutical progress by reducing the stimulus for research that might lead to new discoveries.

- He conceded that reforms are needed in the system, such as improvement of patentability standards, the licensing of unused patents, and a reduction of the time lag between patent application and its issuance. Other speakers called for a better understanding of the meaning and principles of our patent system among chemical engineers. It was suggested that training in patent principles would stimulate interest in invention.

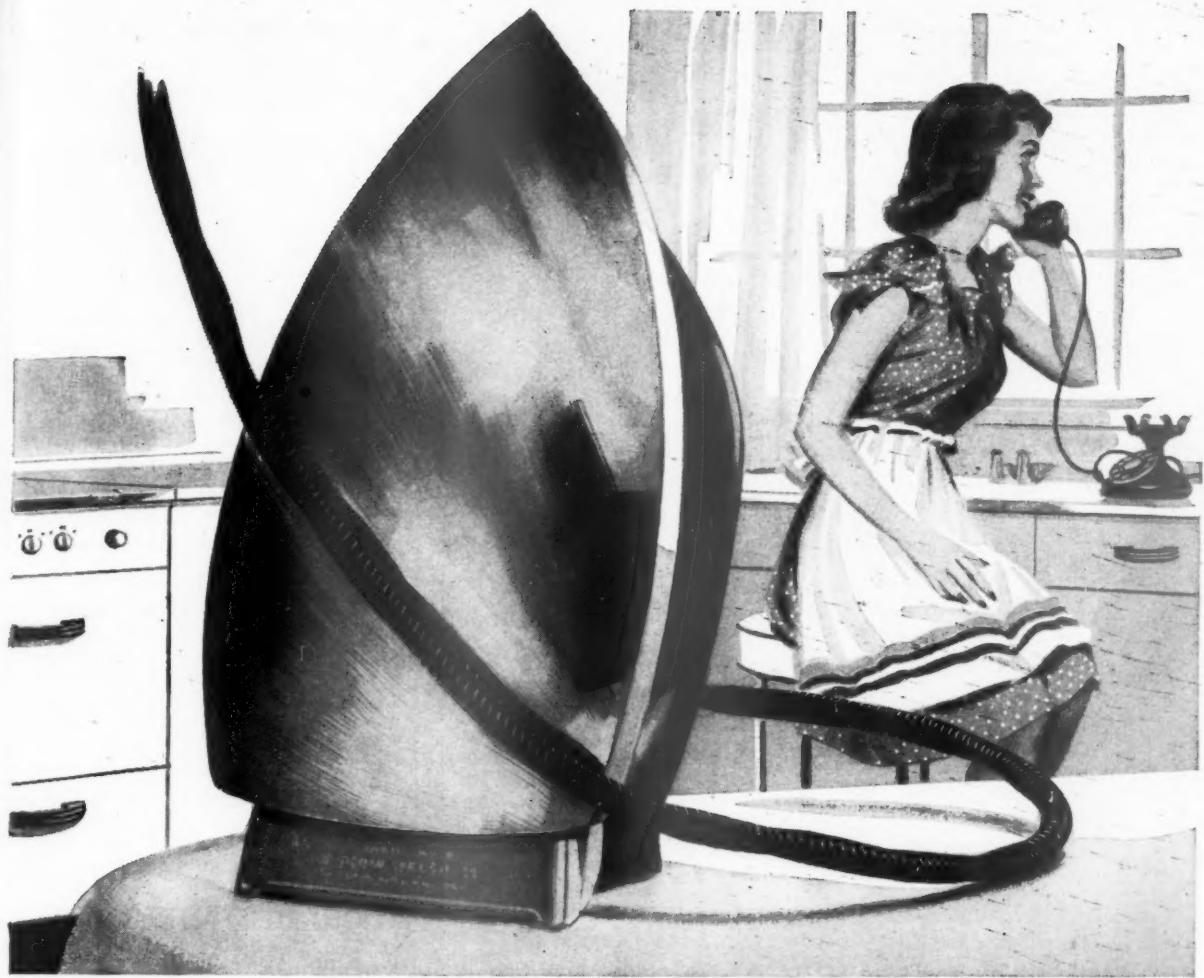
normally obtained from natural sources by meat packers and grain processors.

Waste oat hulls, according to chemists of the Southern Research Institute, may be a source for synthetic cinnamon flavorings. The most promising derivative was said to be furanacrolein derived in two steps. Sugar beet pulp, now used principally as a stock feed, is a rich source of pectin for fruit preserving and medical use.

- Another E Factor—A new vitamin E factor, delta tocopherol, expected to find wide use as a preservative, has been isolated from soybean oil. It is also present in wheat germ, cottonseed and peanut oils. And a new, more efficient method is available for preparing the raw materials from which nicotinic acid, an important member of the vitamin B group, has been produced.

Higher yields of penicillin, "custom-built" for greater effectiveness, will be obtained in new processing techniques. As a result, it will be possible to produce particular types of penicillin to combat various bacteria more effectively. Further medical discoveries include a new method of isolating pure virus applicable to the investigation of viruses causing many human diseases. This new method came out of study of the southern bean mosaic disease.

- A New Compound—A new chemical compound—trans-4-cyclohexylcyclohexane-carboxylic acid—was described as the most potent of several acids tested against a virulent strain of human tuberculosis bacillus. Actual application of the new compound is still some time off, but it may be more effective than the naturally occurring chaulmoogric



This iron cord is hot... but not bothered!

THE LADY should have disconnected the iron cord no matter how good it is. But this much is certain: She would be risking a fire... if it weren't for asbestos in the cord. The asbestos is put inside the cord with the help of another substance—*rayon*.

You see, rayon fibers help "pick up" all lengths of asbestos fibers—including the very short ones which formerly were wasted or caused trouble in the textile machines. The result: a stronger asbestos-rayon roving, which simplifies cord making, and cuts production costs.

This is just one of the many uses research has found for rayon. Engineers of American Viscose, the nation's

largest producer of rayon, are constantly working... often with engineers of other industries...to make rayon do things better.

Today rayon is blended with asbestos not only in iron cords but also in fire-resistant clothes, insulating blankets, curtains, brake linings. And yet it is the substance of such widely different things as dainty rayon lingerie and tough rayon tire cords...

Because rayon is man-made, it can be engineered to fit endless needs. Through continuing research, its qualities improve and its applications multiply... to make both old and new things better for all of us.

AMERICAN VISCOSÉ CORPORATION

America's largest producer of rayon

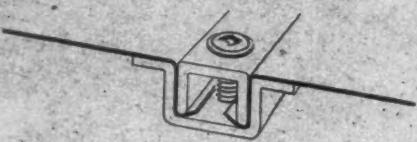
Offices: 350 Fifth Avenue, New York 1, New York; Charlotte, N.C.; Cleveland, Ohio; Philadelphia, Pa.; Providence, R.I.; Washington, D.C.; Wilmington, Del.

*A better way to
buy Rayon Fabrics*



This identification is awarded only to fabrics containing CROWN® rayon, after they have passed the CROWN Tests for serviceability.

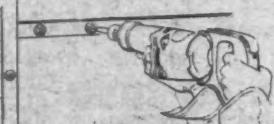
There are 1001 uses for this panel of **LINDSAY STRUCTURE**



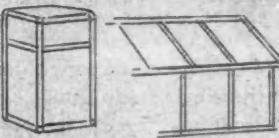
LS—The modern method of holding light sheet metal in tension in order to utilize all of its great strength.

Lindsay Structure is easy to assemble with simple tools.

No Trimming
No Welding—No Riveting
No Waste



Panels are available in sizes to meet any requirement.
From small machine enclosure to large refrigerator buildings.



Investigate the advantages of **LINDSAY STRUCTURE**

The Lindsay Corporation,
1728 25th Ave., Melrose Park, Ill.,
Sales Offices: Chicago, New York,
Atlanta, San Francisco, Montreal.

LINDSAY STRUCTURE

U.S. Patents 2017629, 2263510, 2263511
U.S. and Foreign Patents and Patents Pending

THE MODERN METHOD OF LIGHT METAL CONSTRUCTION

Soap From Garbage

Dehydrated garbage may be a good source of soap, animal food, and fertilizer. In a report to the American Chemical Society, W. A. Bush of the California Flaxseed Products Co., Los Angeles, described experiments wherein commercial yields of grease and oil-cake meal have been obtained.

- Percentage of dried solids lay between 19 and 28, and these solids contained 14% to 23% protein, 33% to 41% carbohydrates, 17% to 22% fat, 8% to 12% fiber, and 12% to 18% ash. Translated into terms of fertilizer analysis, the dry solids contain 1% to 4% nitrogen, 0.02% to 4% phosphoric anhydride, and 0.43% to 1.1% potash.

acid that is used to treat the disease.

Insecticide developments include improved processing and use of the famous DDT; also a new British compound, confusingly called super-DDT although it is not especially related chemically to DDT. This compound is technically known as gammexane, and it is said to be highly effective against the weevil. A halogenate hydrocarbon is toxic to flies and roaches. Another compound, ethylhexamediol, is effective against chiggers, fleas, and mosquitoes.

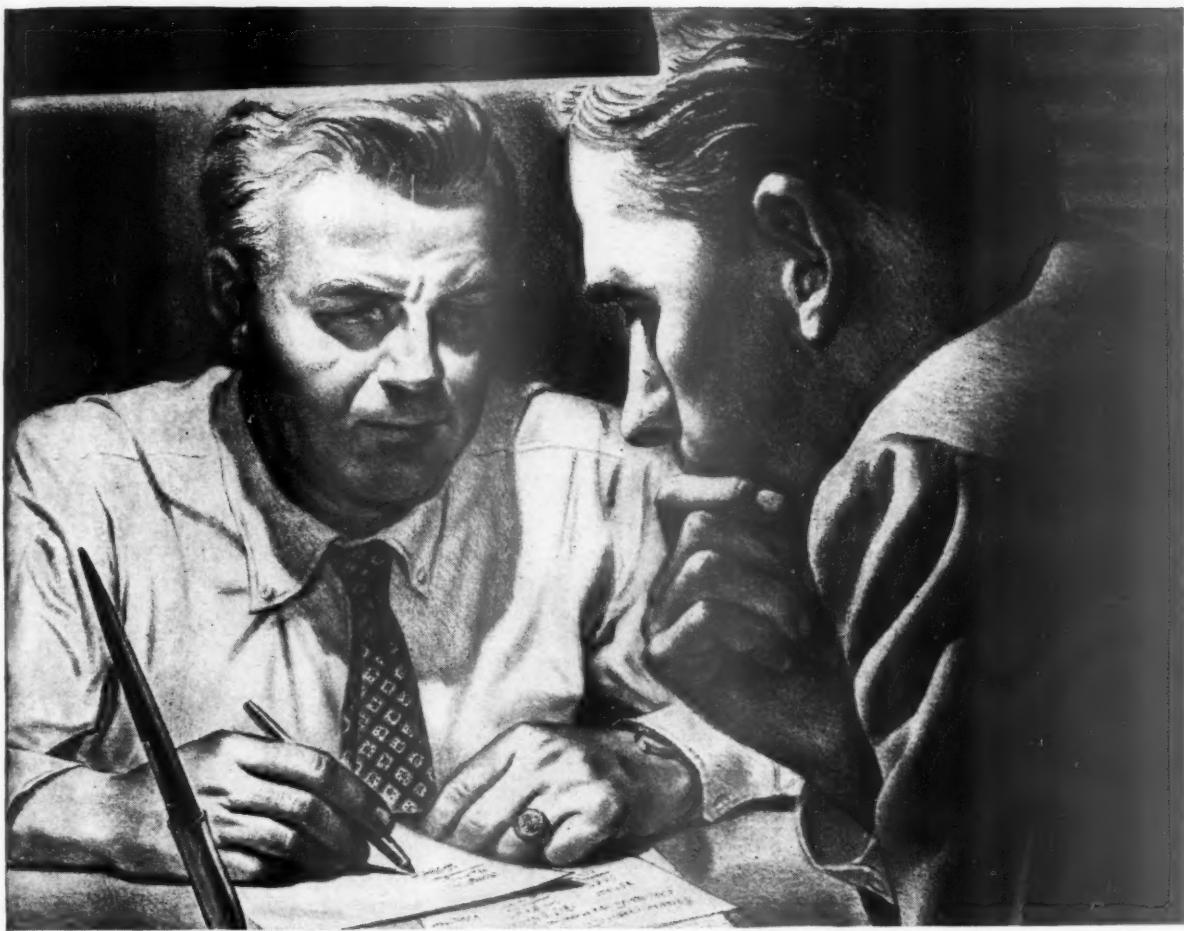
LIGHT-RESISTANT PIGMENT

A new pigment, chemically hydrated ferric oxide, promises outstanding resistance to light for a wide range of products, according to an announcement by the du Pont Co. The product is characterized by an extremely small particle.

After undergoing field tests since 1941 for use in automotive finishes, the pigment was recently announced to the automobile industry in connection with the development of "Duco" Metallichrome nitrocellulose lacquer finishes (BW-May 18 '46, p 50). It is nonbleeding in the usual paint, enamel, and lacquer finishes.

The pigment will provide new shades for industrial enamels and trim paints. It is expected to show less tendency to chalk from outdoor exposure than standard iron oxide pigments.

Other possible uses of the new pigment have not yet been explored. It has been shown to give fast-to-light shades on coated and other papers such as those used for wallpaper. The pigment's fastness to light and resistance to alkali recommend it as a background color in wallpaper and other coated paper coloring applications, as well as in the field of beater coloring of paper and textile printing.



"How does what we are doing compare with what we could do?"

A department head in a large organization was asked if he could reduce costs. He answered: "If you ask whether we are doing the best we can with what we have, the answer is 'Yes'. If you ask whether we are doing the best we *could*, the answer is 'No'." Given certain equipment that he needed, this man knew that he *could* reduce costs, increase efficiency, get more information, improve overall results.

Many a man, responsible for accounting procedure is in that same position. With the right equipment he could reduce costs considerably . . . for example, the same type of National figure-control machines that permitted one medium-sized manufacturer to get his payroll out 9 days earlier, and much more economically. Or let him have a complete report of yesterday's production on his desk on time each day. And saved him over \$40,000 on his yearly accounting costs. All this, and a lot more, might be yours . . . if you had the right National figure-control equipment!

For manufacturers, banks, hotels, retailers, transportation companies, and many others, National Accounting Machines have opened the way to important savings and

greatly improved overall results. They tighten up accounting operations and handle the work with a minimum of error and a maximum of efficiency.

And, in the field of retailing, from the smallest to the largest store, National Cash Registers are the accepted means of recording transactions and controlling operations.

Let a National representative examine your needs and make recommendations without obligation to you. The National Cash Register Company, Dayton 9, Ohio. Offices in principal cities.



Making business easier for
the American businessman

NEW PRODUCTS

Hot Meal Plate

The MealPack Container, announced by MealPack Corp. of America, 152 W. 42nd St., New York City, is of stainless steel. The model combines double-seal insulation and a construction which permit packaging individual freshly cooked hot meals, including breads, pies, cutlery, and napery, at nearby or remote kitchens for delivery and serving up to three hours after packing. Meals are packed in specially designed blueplate dishes made of ovenware type glass. Each dish is sealed with a laminated aluminum foil closure lid which prevents oxidation and spillage in transit. When the blueplate is inclosed and the container halves are clamped together with a Sealock device, a secondary seal is obtained. A sanitary tamperproof meal is assured by the insertion of a small cardboard disc in the Sealock fastener. Once inserted, the container may not be opened without mutilation of the disc.

Air-Conditioning Unit

The American Coils Co., Newark, N. J., has developed a new type of air-conditioning unit which operates on the principle that vapor pressures equalize. A cooling coil inside an inclosure creates a low vapor-pressure area. Carrying moisture in the form of vapor when entering the unit, air is attracted to this low-pressure area through small openings in the coil inclosure. Moisture condenses and is drained off. The air, relieved of its moisture content, flows past the inclosed coil without contacting it, and mixes below the coil with small amounts of cooled air which entered the coil chamber by molecular attraction. The mixture emerges into the room at a degree of both sensible and latent heat said to be most conducive to comfort.

An economy feature claimed for the new unit is the small condensing unit, with the principle employed, it

is not necessary to lower air to the dew point to effect the removal of moisture. Named the Amcoil Confortaire Conditioner, the unit is now available in two floor models.

Electronic Timer

Full automatic or semiautomatic control of equipment is possible with the Promatic timer made by General Control Co., 1200 Soldiers Field, Boston 34. Two or more timers may be used to control a number of individually timed operations in a predetermined sequence, with either self-recycling or manual recycling. Control of the timing period is with a plug-in type condenser unit and a variable resistor. The resistor control has a graduated dial. One con-



denser unit is supplied with each timer to obtain the timing period specified. Five timing periods are available, in ranges of $\frac{1}{2}$ sec. to 1.2 sec., $\frac{1}{2}$ sec. to 8 sec., $\frac{1}{2}$ sec. to 15 sec., 1.5 sec. to 30 sec., and 3 sec. to 60 sec. The timer is available in both 110- and 220-volt types, 60 cycles, a.c., with relay contacts rated at 10 amperes. Timers for operation on d.c. are also available, on special order.

With minor factory changes, the timers can be adapted for use on numerous nontiming applications—such as forward-acting photoelectric cell relays, and for use as a very sensitive relay. The unit weighs $2\frac{1}{4}$ lb.

Ball Vise

The Reypo universal ball vise, made by Reypo Corp., 9900 Lincoln Blvd., Los Angeles 45, has an entirely inclosed body to prevent entrance of dust and chips. Changes in work position are made by lever lock and release. Parallel



ground surfaces on the hardened anvil and jaws aid in compound angle setting. The nut is horizontally anchored to give a straight pull close to vise jaws. The universal ball base is designed so that the vise can be positively locked at any desired angle. Twist, wobble, lost motion are said to be completely eliminated. Jaws of the vise are interchangeable and reversible and are hardened to 55-58 C Rockwell.

Metal Thermometer

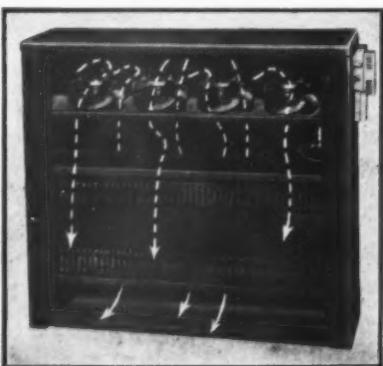
A low-cost all-metal thermometer, the Max-Min, which indicates maximum or minimum temperatures, is announced by Weston Electrical Instrument Corp., Newark, N. J. It is described as a low-cost device which will provide an accurate record of temperatures for transformers, sterilizers, ovens, and chemical equipment, as well as in many processing operations.

Improved Parking Meter

A new model of the Mark-Time manual parking meter, with novel features designed to improve traffic enforcement, is being produced by M. H. Rhodes, Inc., 30 Bartholomew Ave., Hartford 6, Conn. The most notable development prevents cheating by deliberate or inadvertent failure to turn the coin lever its full circuit. In the new model, turning the lever any distance starts the recording mechanism, so that a user would cheat only himself by an attempt to stall the meter. Visibility has been improved by eliminating a pointer and substituting a red shield which covers the dial progressively as parking time elapses. Enforcement officers can thus spot violations readily. A device which prevents theft of the coin left in the coin window is also incorporated.

Fibrous Glass Mattress

The "Glas-Sleeper" mattress, made by A. Moody & Co., Inc., 53d and San Pedro Sts., Los Angeles 11, is made entirely of Fiberglas and glass fabric. Be-



nvil
ng.
The
hat
any
mo-
mi-
nge-
l to

the
n or
iced
orp.,
low-
ccu-
ans-
ical
cess-

han-
ures
ent,
des,
d 6,
ment
had-
r its
ing
ord-
ould
t to
im-
and
vers
ime
thus
ich
the

ade
San
en-
Be-

1946



It doesn't take a Samson
to run a rig . . .

with ENGINAIRED controls

Oil drilling equipment is rugged and husky, and operating it used to take muscles to match. But Enginairing has softened up the job.

A few small, compact W·A·B valves vary the speed of the battery of engines when operated singly or compounded, balance loads, actuate clutches—in short, handle the whole control job. A finger-touch positions them, and produces immediate

positive response. The precise command that W·A·B devices give brings an important extra advantage in "fishing" operations.

W·A·B devices are serving on oil rigs . . . on cranes . . . on earth moving equipment . . . on work boats. If your plans for the future include the purchase of any such equipment, be sure to specify W·A·B Enginairied controls.

WESTINGHOUSE AIR BRAKE COMPANY
INDUSTRIAL DIVISION



WABCO PACKING



AIR COMPRESSORS



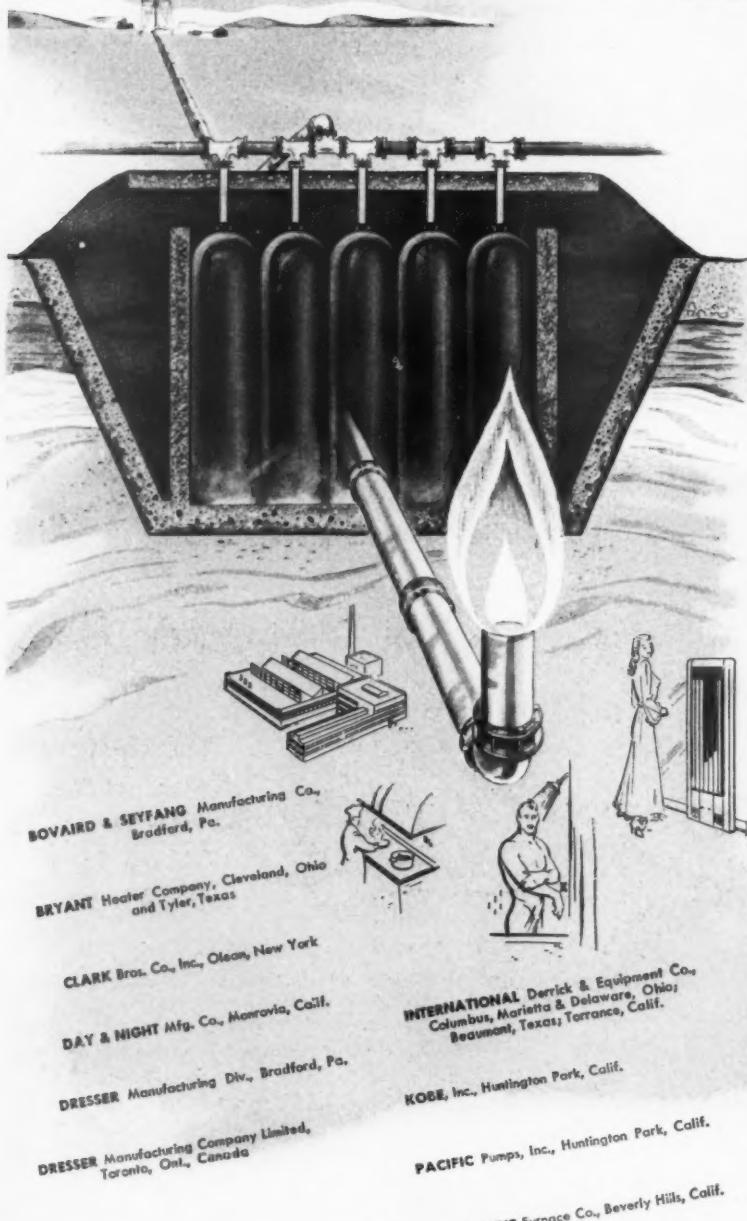
PNEUMATIC CONTROL

WILMERDING, PA.



You'll be "cooking with gas" . . .

WHEN YOU TAP THE BOTTLE



There's an economic pitfall in piping natural gas from where it is to where it's wanted. Where it's wanted, folks keep turning it on and off. But where it comes from, people have to keep it flowing in order to make the pipeline pay.

So, the new research division of Stacey Bros. Gas Construction Co., *Stacey-Dresser Engineering*, is designing storage plants to even out peaks and lulls in pipelines. Even a small installation calls for at least two hundred bottles. Each bottle—a mere ten feet in diameter and from forty to sixty feet long!

Gas drawn off the line during a lull can be liquefied and bottled until peak demand. Dresser Industries makes the compressors and pumps required to refrigerate the gas until it is liquid—achieved at the lowest temperature employed commercially—minus 260°. A million cubic feet of gas, when liquefied, amount to 12,500 gallons and can be squeezed into one bottle.

Wherever machinery is needed for gas, from the diverse equipment for drilling wells to automatic gas heating for homes, you find the engineering ingenuity of Dresser Industries.

ROOTS-CONNERSVILLE Blower Corporation,
Connersville, Ind.

SECURITY Engineering Co., Inc., Whittier, Calif.

STACEY BROS. Gas Construction Company,
Cincinnati, Ohio
Stacey-Dresser Engineering Div., Cleveland, O.

VAN DER HORST Corporation of America,
Olean, N. Y.

Creative Engineering
IN THE GAS INDUSTRY

DRESSER
INDUSTRIES, INC.

TERMINAL TOWER • CLEVELAND 13, OHIO

Geared to anticipate the course of industry
Oil and gas equipment a specialty

ntu-
ted.
on
ple
ake

cey
sser
s to
ven
two
ten
sixty

can
and.
sors
gas
tem-
inus
when
can

gas,
ling
mes,
of

sie
th
sin
ba
size
cla
he

S

no
Po
ma
Be
ce

lo
or
sp
ga
Se
th
co
4

Sh

by
in
Oc
pro
fa
ri
on

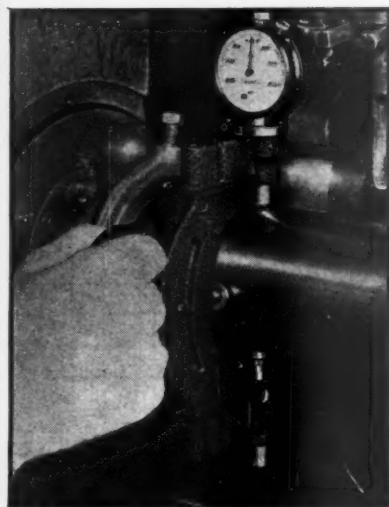
ke
ba
ph
th
ty
av
di
Br
in
a
m
Br

BU

sides being fireproof, it is asserted that the mattress will bring allergy relief, since it is dustless and does not harbor bacteria, molds, or fungus. In the twin size, the mattress weighs 10 lb. It is claimed that the material does not mat, hence no turning is required.

Snap Gage

The Decimatic dial snap gage announced by Standard Gage Co., Inc., Poughkeepsie, N. Y., is fitted with demountable heads and extension spacers. Both gaging pins are surfaced with cemented carbide to reduce wear. The



lower, adjustable pin is flat; the upper one, which actuates the indicator, is spherical. Using an extension spacer, the gage is adjustable over a range of 1 in. Sets comprising a complete gage and three extra spacers are available, and cover either the range of 0 to 4 in. or 4 in. to 8 in.

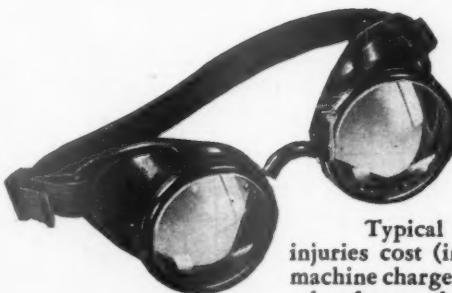
Shorthand Machine

A new shorthand machine, patented by Wendell V. Kirkpatrick, San Diego inventor, will reach the market in October. Called the Kirk Brevitype, it prints standard English characters vertically on a 1½-in. dimension of 6-in. fanfold type paper using a system derived from the same phonetic principles on which Gregg shorthand is based.

The keyboard contains eleven triplex keys, a shift bar for figures, and two bars for punctuation marks. With a few phonetic substitutes, the keyboard has the same letter pattern as a standard typewriter. It is estimated that the average stenographer will be able to take dictation at 150 words per min. on the Brevitype. The Brevitype is 8½x8½x3½ in. in size, weighs 3 lb., and is housed in a brown plastic case. Production and marketing will be handled by Kirk Brevitype Corp., San Diego, Calif.



First Aid Is Second Best



**A-O Safety
Goggles Can
Prevent 98% of
Costly Eye
Accidents**

Typical records reveal that eye injuries cost (in first aid attention, idle machine charges, unproductive time, and other frequently "hidden" costs) \$14.60 per injured man per year. Yet 98% of these accidents (according to the verified figures of the National Society for the Prevention of Blindness) are *avoidable*—mainly through the use of Safety Goggles.

Can you afford to overlook this opportunity to lower your production costs?

Why not let your nearest A-O Safety Representative give you the complete story on savings through eye safety.

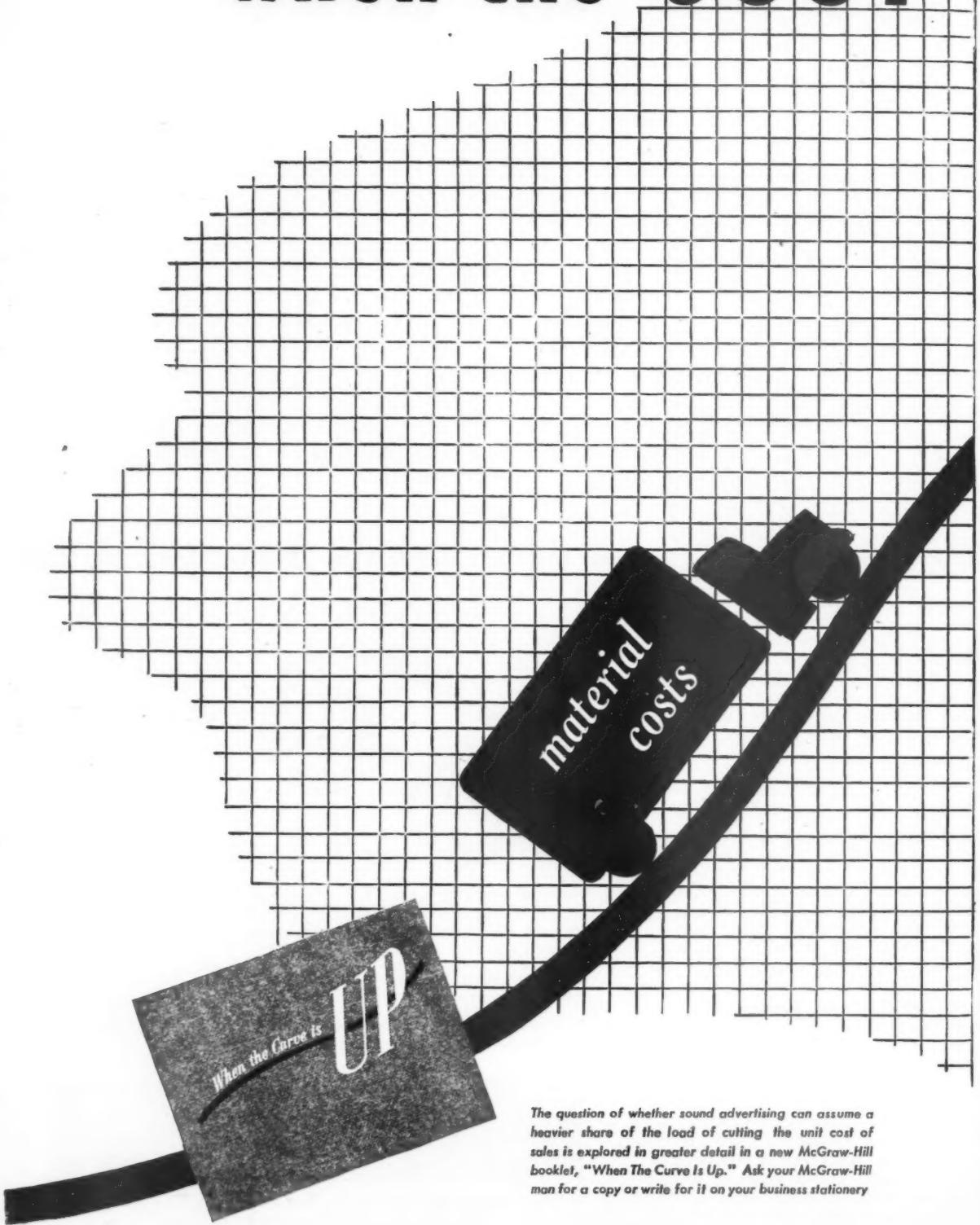
American  Optical

COMPANY

Safety Division

SOUTHBRIDGE, MASSACHUSETTS
BRANCHES IN PRINCIPAL CITIES

when the COST



The question of whether sound advertising can assume a heavier share of the load of cutting the unit cost of sales is explored in greater detail in a new McGraw-Hill booklet, "When The Curve Is Up." Ask your McGraw-Hill man for a copy or write for it on your business stationery.

CURVE goes up



When the cost curve goes up, there's a squeeze on profits. American Industry has traditionally . . . and with notable success . . . met this challenge by developing better methods for manufacturing a product.

Perhaps another field offers equal possibilities . . . *better methods for manufacturing an order*. We, of McGraw-Hill, believe sincerely that one of industry's greatest sources of untapped profit potential lies in the field of distribution and selling.

Can advertising take over a heavier part of the load of achieving the low unit costs which are so essential to the maintenance of a high rate of employment and an increase in the high standard of living?

We believe that it can.

Sound industrial advertising, in the magazines your prospects read, can implement and supplement, amplify and multiply your sales force . . . can give your salesman more time for effective selling . . . can lower the unit cost of making a sale.

McGRAW-HILL

PUBLISHING COMPANY, INC., 330 West 42nd Street, New York 18, N. Y.



The McGraw-Hill Network of Industrial Communication:

American Machinist • Air Transport • Aviation • Aviation News • Bus Transportation
Business Week • Coal Age • Chemical Engineering • Construction Methods • Electrical Contracting • Electrical Merchandising • Electrical West • Electrical Wholesaling
Electrical World • Electronics • Engineering & Mining Journal • E. & M. J. Metal and Mineral Markets • Engineering News-Record • Factory Management & Maintenance • Food Industries • Mill Supplies • McGraw-Hill Digest • Power • Product Engineering • Science Illustrated • Textile World • The Welding Engineer

LABOR

Foremen's Groups Gaining

Supervisory workers' union chalks up four victories in auto plants. Growth of National Assn. of Foremen also shows strength of trend toward organization. Management opposition stiffens.

During the war many industrial supervisory employees, caught in a wage control vice which pinched them harder than the unionized production workers they bossed, and fearful of what might happen to their jobs in reconversion to peacetime operations, turned to the Foreman's Assn. of America (Ind.) and other unions for help. Management hoped it would be strictly a war phenomenon, that when the shooting

ended supervisory workers would drop their interest in unions.

Recent developments have indicated that current high employment level has made the fears of demotion of many foremen groundless but—and it is one of the biggest bugs on the management mind—has not erased the supervisor's interest in being a union member.

• **Signposts**—The F.A.A. two weeks ago showed growing strength (BW—Sep. 14 '46, p108) in winning collective bargaining elections in four Chrysler Corp. plants in Detroit, being defeated in only one insignificant test.

More than 5,000 foremen from 42 states demonstrated a similar interest in their future by attending a St. Louis convention of the National Assn. of Foremen (not a labor union). Plans were mapped for a broadened program of national foremen's clubs which would not set themselves up as collective bargaining units, but which would seek "unity and cooperation in all management, and improved standards for foremen."

The two developments generally were considered to reflect the growing tug-of-war between management and the unions for the loyalty of supervisory personnel. The N.A.F., however, denied that it was in any way management dominated, pointing out that its bylaws impose no barriers to unions which are not linked with production workers—that is, to any unions which recognize foremen and supervisory workers as management men. In a number of plants under contract with F.A.A., foremen also are maintaining membership in N.A.F. clubs.

• **Opposition**—Meanwhile, in Washington, where a conference between John L. Lewis of the United Mine Workers (A.F.L.) and bituminous coal operators (BW—Sep. 14 '46, p94) was delayed for a month after preliminary talks, the coal operators made one thing clear: They are not going to accept organization of their supervisory employees into U.M.W.'s United Clerical, Technical & Supervisory Employees Union without a fight.

F.A.A.'s biggest victory to date came in the Chrysler tests. It won at the De Soto-Wyoming plant 60-28, at Plymouth 208-115, at Dodge Forge 34-7, and at Dodge Main 468-258. It lost

only at the McKinstry Ave. plant 1-9. The F.A.A. vote (1,233 of an eligible 1,285 went to the National Labor Relations Board polls) represented 70% of the foremen.

• **Court Fight Seen**—There was no doubt that Chrysler, like the Packard Motor Car Co. (BW—Sep. 7 '46, p86), will resist recognizing the F.A.A. and oppose bargaining with it at the four plants where the union chalked up its victories. This will force the NLRB into the courts for an enforcement order.

F.A.A. success has been less marked recently outside the automotive industry. Defeats, such as a 225-55 setback at Gary Sheet & Tin Mill of U. S. Steel and a 103-73 rebuff at Wilson & Co., have bothered F.A.A.'s leaders.

• **Foremen's Clubs**—The National Assn. of Foremen, founded 23 years ago in Dayton and now reported to have about 200 clubs with 30,000 members, is strongest in the automotive, electrical, food, aircraft, transportation, and steel industries, but it is expanding.

While the convention attracted 5,000 persons—a large number of them from the West Coast—all were not delegates. A large number attended as "observers" from industrial personnel and training departments interested in organizing clubs.

These may be in two classifications: (1) plant clubs, if sufficient supervisors are employed to make it feasible, or (2) community clubs of foremen from groups of small plants. If a community club is formed, officers of any plant club in its territory automatically must take out memberships in the broader group. Goal of the clubs is to exchange notes on management methods.

• **Professional Interests**—The national organization in Dayton supervises operation of clubs, particularly for adherence to a Code of Ethics adopted in 1930 (BW—Feb. 19 '30, p10). It also assists in setting up and maintaining educational and other programs designed to improve foremen's standards.

Current head of the N.A.F. is B. A. Hoddap, a supervisory employee of the Peerless Saw Co., Columbus, Ohio.

A.F.L. POLITICAL REACTION

William Green, A.F.L. president, had the federation's southern organizing committee squirming uncomfortably recently when his political action remarks at an executive council meeting in Chicago were snatched up as good copy by the national press.

Green announced that, in view of what he termed the unsatisfactory labor record of the last congressional session, A.F.L. was left with no alternative to undertaking an active role in politics. Implication was that A.F.L. was going to enter the political lists with its own



BRIDGE WORK

When the Milwaukee Railroad ordered 43 loaded freight cars moved into Allis-Chalmers' West Allis (Wis.) plant, striking C.I.O. auto workers tried something new—an elevated picket line. Signs dangled from bridges urged support from train crews. Result: No cars moved until supervisory employees subbed for regular trainmen. The railroad denied it was helping Allis-Chalmers fight its strike, and explained that the Interstate Commerce Commission had ordered the freight cars—idle for three months—back into service because of the national car pinch.

PERMANENT MAGNETS MAY DO IT BETTER!



The floating compass was one of the earliest forms following the discovery of the lodestone's magnetic properties. Magnetized strips of metal which when arranged so they could float in a water filled container, served as a crude but relatively accurate compass.

This is an old time spirit compass built by Ritchie & Sons Inc. While this compass is at least 65 years old, it is still fit for navigation. Note hand-painted curved card. This is the property of T. S. & J. D. Negus, New York.

T. S. & J. D. Negus · New York
Chronometers & Nautical Instruments

How Permanent IS A Permanent Magnet?

Since its discovery, the permanent magnet has been one of man's most faithful servants (as an aid in transportation and navigation). In most instances the life of the permanent magnet exceeds the life of the instrument it serves. After 65 years of faithful performance the Ritchie spirit compass, illustrated above, is still fit for navigation—the directing power of the permanent magnet is still accurate.

The permanent magnet used in the speedometer normally outlives the life of the automobile, despite the demagnetizing influences, physical strain, and vibration of high speed service. Although modern magnetic materials of greater retentive power have been developed, many of the antiquated permanent magnets are still serving adequately.

With the use of modern magnetic-alloy materials,

infinitely more energy can now be packaged into permanent magnets. They are greater in strength... smaller in size... more functional in design... with greater stability in an electrical and steel age of vastly greater demagnetizing forces.

The Indiana Steel Products Company is a pioneer producer of "packaged energy", having made more than 24,000 applications in the 36 years of specialized permanent magnet production. Permanent magnets may have some application in your industry... may do some job or process better for you. Our engineers will gladly help you develop your plans for magnet application. For complete information and valuable technical data on magnet application and materials, please write for our "Permanent Magnet Manual."

* THE INDIANA STEEL PRODUCTS COMPANY *

PRODUCERS OF "PACKAGED ENERGY"

6 NORTH MICHIGAN AVENUE • CHICAGO 2, ILL.



SPECIALISTS IN PERMANENT MAGNETS SINCE 1910

PLANTS | VALPARAISO, INDIANA
STAMFORD, CONN. (CINAUDAGRAPH DIV.)

©1946 The Indiana Steel Products Company

A quick source of MORE WORKING CAPITAL



COULD YOU MAKE MORE PROFIT IF YOUR

BUSINESS HAD MORE OPERATING CASH?

SEND FOR OUR NEW BOOK, "A BETTER

WAY TO FINANCE YOUR BUSINESS."

LEARN HOW LITTLE MONEY COSTS, HOW

MUCH MORE YOU CAN GET AND HOW LONG

YOU CAN USE IT UNDER OUR LIBERAL

LOW-COST COMMERCIAL FINANCING PLAN

Write to the nearest office listed
below and ask for Booklet "C."

COMMERCIAL FINANCING DIVISIONS:
Baltimore, New York, Chicago, Los Angeles, San Francisco, Portland, Ore.



FINANCING OFFICES IN PRINCIPAL CITIES OF THE UNITED STATES AND CANADA

version of the C.I.O.'s Political Action Committee.

Organizers for the federation have capitalized on the P.A.C.'s unpopularity in the South. A.F.L. condemnation of C.I.O. political activity through P.A.C., referred to by A.F.L. as a left-wing adjunct, has been widely used. On the other hand, workers have been assured that A.F.L.'s objectives are primarily economic, and that the federation does not believe in party politics for organized labor.

Green's statement drew quick protests. It was subsequently toned down, to call for vote drives for partisans of labor causes—but on a strictly nonpartisan basis. To counteract any possible effect from earlier phrasing, A.F.L. intensified its attacks on C.I.O.'s P.A.C. activities.

Door-to-Door Pay

What began as concession to Lewis' miners bids fair to be imposed on many other industries with sanction of the courts.

Increasing signs that portal-to-portal pay is moving, as a wage issue, from the mines in which it started to factories and retail stores had management's close attention this week. What began as a means of giving John L. Lewis' coal miners a "fringe" raise within the stabilization pattern has been adopted, successively, in slaughter houses, bakeries, powder plants, lumbering, and recently a pottery plant.

It shows no sign of stopping in any one of them. Automotive management in Detroit is apprehensive over reports that the United Auto Workers (C.I.O.) is preparing to demand that work time start and stop at plant gates.

- Handwriting on Walls—Pittsburgh steel companies interpret a recent policy statement by Philip Murray that C.I.O. wants portal-to-portal for all industry as a direct indication it will be sought in February steel negotiations.

And in Chicago, Pittsburgh, New York, and Detroit, some department store executives say they can read some ominous handwriting on their walls, too, on the issue of employees' demands for pay for the full time spent in stores.

For a large segment of management, the mere fact that portal-to-portal pay is wanted is not as important as the fact that unions are talking of it in terms of retroactivity, and are demanding compensation—usually as adjusted overtime—for as many as two, three, or five years (BW-Sep. 14 '46, p98).

- Suit Against du Pont—Last week District 50 of the United Mine Workers (A.F.L.) filed suit in the U. S. District

Court in Charleston, W. Va., against E. I. du Pont de Nemours & Co., asking \$1,000,000 in back portal-to-portal pay for employees. The suit alleged that du Pont violated the Fair Labor Standards Act by requiring its Belle plant personnel to be on the job longer than their eight-hour shift—on which their pay was based—in going to and from stations after checking in.

Mose E. Boiarsky, attorney for District 50, said that the demand was based on a number of court decisions upholding portal-to-portal pay, in particular one from the U. S. Supreme Court which requires an employer to pay for "time necessarily spent by employees in walking to work on the employers' premises after punching the time clock."

District 50 announced recently that this "travel time" was being checked in its other contract plants.

• **"For All Industry"**—C.I.O.'s interest in the principle of portal-to-portal pay was reflected in a statement by Murray before a regional meeting of his steelworkers, in which he announced that C.I.O. "is interested in the application of portal-to-portal pay for all American industry. The C.I.O. intends to find out why the portal-to-portal provisions in the Fair Labor Standards Act which have long benefited the miners have not been made applicable to other wage earners."

Murray said portal-to-portal pay had become an accepted legal principle in labor law, and cited a recent Supreme Court decision in a Mt. Clemens (Mich.) Pottery Co. case. The court allowed 1,200 employees, members of the United Pottery Workers of America (C.I.O.), compensation for walking time from clocks to work benches and for preparation time.

• **Preliminaries Cited**—This upheld the workers' complaint that they had to wait in line an average of four minutes to punch the time clock, and then—before their pay period started—had to allow two minutes to walk to benches and another three minutes to get ready for work by greasing and taping arms, putting on special clothes, preparing equipment, turning on switches, and doing other preliminary work.

Mt. Clemens Pottery's requirement was a common one for factory employees—that workers be at their benches, ready to start, at the beginning of the shift hour, and punch the clock long enough beforehand to assure prompt arrival and adequate preparation for work.

• **Murphy's Requisite**—The practice was common enough to worry many other companies. Some hope was found in the fact that Justice Frank Murphy, who wrote the majority opinion, noted that time so spent often may be found sufficiently negligible that it might be disregarded. "A substantial measure" of

This Free Book

TELLS HOW PC GLASS BLOCKS IMPROVE OPERATING CONDITIONS, DECREASE COSTS

The many and varied uses of
PC Glass Block construction in In-
dustrial buildings are described and
illustrated in this new 28-page
book. See how PC Glass Blocks im-
prove working conditions and also
save money.

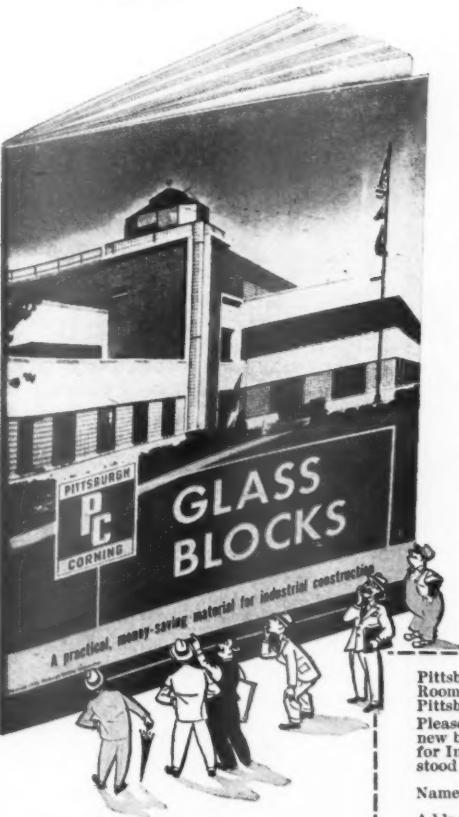
HERE is the latest and
most complete information
on the use of PC Glass
Blocks in all sorts of indus-
trial buildings.

This lavishly illustrated
book—just off the press—con-
tains actual photographs of
PC Glass Block installations
in industrial plants of all
types. The properties, char-
acteristics and functions of
the individual blocks are de-
scribed, the full line of pat-
terns is pictured, and the
sizes are listed.

The technical data section
includes authoritative infor-
mation on light transmission,
insulation (which minimizes
condensation), weather resis-
tance, structural strength, ease
of cleaning and maintenance,
exclusion of dust and grit,
dampening of distracting
noise. Layout tables and de-
tailed drawings of typical PC
Glass Block installations are
supplemented by detailed
specifications for panels and
for various panel and sash
combinations.

Get this information now.
Just send in the coupon and
your free copy of this new
book will be mailed promptly.

ALSO MAKERS
OF PC FOAMGLAS
INSULATION



Pittsburgh Corning Corporation
Room 350, 632 Duquesne Way
Pittsburgh 22, Pa.

Please send along my free copy of your
new book on the use of PC Glass Blocks
for Industrial Construction. It is under-
stood that I incur no obligation.

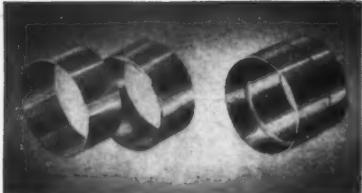
Name _____

Address _____

City _____ State _____



PITTSBURGH PLATE GLASS COMPANY and by W. P. Fuller & Co. on the Pacific Coast



A FREE FIT...BUT NOT LOOSE

Here is a job that calls for exceptionally fine tolerances. The thin-walled ring had to fit snugly over the thick-walled ring—a free fit . . . but not loose. Not only was it necessary to hold close tolerances for size, but also for accurate concentricity. From the selection of special steel bar stock, through the machining, heat treating, grinding, and inspection operations, this was a typical Ace precision job.

If you are looking for a source of supply for small parts or assemblies from the tool and die stage on through stamping, machining, heat treating and grinding, it will pay you to consult Ace. Send sketch, blueprint, or sample for quotation.



ACE MANUFACTURING CORPORATION
for Precision Parts

1211 E. ERIE AVENUE, PHILADELPHIA 24, PA.

WHEN, WHERE and HOW TO BUILD A FROZEN FOOD LOCKER PLANT



DOES YOUR TOWN NEED A LOCKER PLANT?

THE POPULARITY of frozen foods has increased the needs for public frozen food storage locker plants. They are profitable to own, manage, and operate. Over 7,000 locker plants now operate in the U. S. . . thousands more are needed. Salem Engineering Company can design and build the best type for you. Write today.

SALEM ENGINEERING CO.
BOX 601 . . . SALEM, OHIO

time and effort was declared requisite for compensation.

Hope also was stirred by the dissent filed by Justices Burton and Frankfurter, who said there was no evidence that the act was intended to define a work-week different from that established by industrial practice. It also declared that activities undertaken in the pottery plant before and after hours were "of quite a different character" from those

involved in the Tennessee Coal, Iron & Railroad Co.-Jewel Ridge Corp. coal mine case in which portal-to-portal pay for miners was legalized (BW-May 12 '45, p. 96).

Meanwhile, unions in auto, steel, and distribution, and in a scattering of other industries, were preparing to see how the high court's Mt. Clemens Pottery dictum could be made to fit their own situations.

THE LABOR ANGLE

Affiliation?

Long established railroad brotherhood lines may be remapped as a result of consideration now being given by three, and possibly more, unions to the problem of adapting themselves to modern industrial demands.

Shortly after the May railroad strike ended, after government intervention which A. F. Whitney, president of the Brotherhood of Railroad Trainmen (Ind.), described as a "stab in the back" for the union, Whitney said bluntly that the day of independent unions appeared to be at an end. The B.R.T., he complained, might be forced into A.F.L. or C.I.O. in order to safeguard its interests.

Whitney's remarks were passed off at that time as an expression of dissatisfaction over inability of the B.R.T. and the cooperating Brotherhood of Locomotive Engineers to swing enough weight to win a favorable decision in Washington, but it was recognized that there was some sound reasoning behind the statement (BW-Jun. 22 '46, p. 84).

Now there is new indication that the idea of B.R.T. affiliation with one of the big unions has not been allowed to drop. Presidents William Green of A.F.L. and Philip Murray of C.I.O. are scheduled as speakers (and master salesmen for their respective unions) at B.R.T.'s convention now under way in Miami Beach. Before the end of the convention, set to run six weeks, the brotherhood's 217,000 trainmen probably will be asked to affiliate with either A.F.L. or C.I.O.—probably the latter.

Amalgamation?

Another solution may be worked out for the Brotherhood of Locomotive Engineers, which collaborated with the B.R.T. in the May strike. A move to merge the B.L.E. with an

erstwhile rival organization, the Brotherhood of Locomotive Firemen & Enginemen, has reached the point where the latter is polling its members.

Such efforts at amalgamation of the engine crew unions have always failed, but this time D. B. Robertson, president of the B.L.E., is strongly urging the merger as a means of countering increasing organizing costs and of building up new strength and bargaining power for both brotherhoods.

So far as B.L.E. is concerned, the amalgamation would put its members into the sphere of other railroad brotherhoods and operating unions—with which it has been sharply divided in the past. But advocates of the merger are convinced that the engineers' position, backed by the solid front of railroad labor, would be even stronger than it would be if the B.L.E. went into the A.F.L. or the C.I.O.

Denial

The Order of Railway Conductors was drawn into the arena of changing brotherhood line-ups recently when, at the opening of its Chicago convention, proposals to merge it with the Brotherhood of Railroad Trainmen and the Switchmen's Union appeared suddenly.

O.R.C. officers quickly acted to scotch the "rank-and-file" merger movement, for which they blamed Whitney, the Trainmen's president, the C.I.O. which they said he favors, and Communists who recently launched a new effort to move into the railroad labor field by advocating "one big union" for rail workers.

O.R.C.'s veteran president, Harry W. Fraser, denied that any amalgamation proposals have been made officially, invited Whitney to use "a right and honorable way of going about" obtaining any objective of consolidation or amalgamation.



National Fire Prevention Week, October 6 to 12

THIS year, Fire Prevention Week has greater importance for everyone. Fires are more frequent—housing is scarcer and more costly. Should your home and possessions be destroyed, your loss would be more tragic because the cost of replacement might be as much as 60% higher at today's increased values.

To free yourself from worry, be sure, first of all, that you're taking every possible precaution against fire hazards throughout your home. Then let your Hardware Mutuals representative show you the soundest, most economical way to adjust your fire and extended coverage insurance in line with today's full insurable values. You'll find the benefits of Hardware Mutuals policy back of the policy particularly timely.

Each year since organization, these benefits have included substantial dividend savings,

enabling thousands to purchase increased coverage in fire and other lines of Hardware Mutuals insurance. The total dividend savings returned to policyholders now exceed \$100,000,000.00.

Other advantages of the *policy back of the policy* include prompt, fair claim settlements, and expert nationwide service. Licensed in every state—offices coast to coast.

Automobile, Workmen's Compensation and other forms of non-assessable Casualty and Fire Insurance

Hardware Mutuals

FEDERATED HARDWARE MUTUALS

*Hardware Dealers Mutual Fire Insurance Company, Home Office, Stevens Point, Wisconsin
Mutual Implement and Hardware Insurance Company, Home Office, Owatonna, Minnesota*

HARDWARE MUTUAL CASUALTY COMPANY
Home Office, Stevens Point, Wisconsin

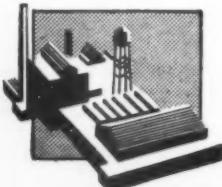
**DON'T OVERSHOOT
THE "BULLSEYE" . . .**



NEW ENGLAND'S *Logical* DISTRIBUTING CENTER

IN New England the "Bullseye" for locating your branch plant or distribution center is Worcester. Located at the economic heart of New England . . . 76% of the market within a 75 mile radius . . . Worcester has main line service of the three major railroads, more than fifty motor truck lines, and airline service. At Worcester you gain economic market penetration, minimize costly back hauls.

Don't overshoot! Don't undershoot! Hit the "Bullseye" in New England distribution locate in . . . Worcester.



Write the Industrial Bureau, Worcester Chamber of Commerce, for more information. A complete Engineering Service available on transportation, marketing and plant site problems.

How Much More?

U.A.W. undecided on new Chrysler wage demands, but may plump for adjustable increase hitched to living costs.

What road the aggressive United Auto Workers Union (C.I.O.) will take in its continuing quest for higher wages will be revealed next month when reopening of the Chrysler contract wage clause progresses to the brass-tacks stage. But from present indications, the increase to be sought may be almost as indefinite then as it is today.

Growing sentiment within the locals, not only at Chrysler but at other companies as well, favors a sliding pay raise tied to the cost of living. The union believes that this would relieve it of blame for starting off another wave of raises to which further advances in living costs could be attributed.

• **Advantages**—From the point of view of general union policy, this approach would have an additional value. Other major contracts—such as those with General Motors and Ford—are frozen for definite periods. The union as a whole would be less reluctant to seek cost-of-living advances in such contracts before their expirations than to demand flat advances.

Further, Chrysler adamantly opposes flat raises while its competitors' rates stay frozen. That much was indicated in a letter from the company to the union acknowledging U.A.W.'s request to reopen the wage clause 60 days from mid-August.

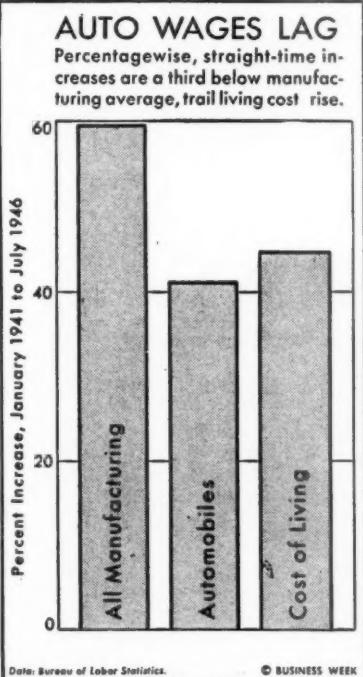
Robert W. Conder, Chrysler director of labor relations, wrote Norman Matthews, head of the union's Chrysler department, calling attention to the fact that the Chrysler open-end wage deal was made after the labor bargainers insisted that the union board would not approve an agreement freezing wages for a definite period, but that immediately afterward other agreements which froze rates were approved.

• **Way Out?**—But the company left a loophole in this letter. Conder wrote, "The way to more purchasing power is through producing more." In some union minds, this implies that Chrysler might be amenable to an arrangement which tied wage rates to production. Inasmuch as all companies have complained of low worker productivity in recent months, union demands for a sliding scale might be coupled with assurances of increased output.

The question the union is now most seriously pondering, however, is how much to ask. It will begin its study by figuring that living costs have gone up at least 5% or so since the Chrysler

pay rates were advanced early this year. Then it will consider the findings of a C.I.O. research committee that began work recently on a report on prices. This report may well anticipate a further living-cost advance of about 7% this year (BW—Report to Executives, Aug. 24 '46, p45).

• Room for Bargaining—Accordingly, union negotiators could come to the Chrysler conference table with demands for a 12% cost-of-living wage advance (equivalent to around 16¢ an hour)



Some of the official militance instilled in the auto workers by their union leaders is based on statistics. While the industry is still one of the highest paid in the country, its competitive wage position with respect to other industries has been slowly weakening. Straight-time hourly earnings of automobile workers have gone up 41.1% (an extrapolated estimate from BLS figures) from January, 1941, to July, 1946—latest month for which data are available. The rise in all manufacturing industries was 59.8% over the same period. The big gainers have been in the still relatively low paid soft goods lines. Wages in women's clothing, for example, have gone up more than 110%. The fact that the auto workers' increases have been outdistanced by the jumps in the official cost-of-living index is also a source of friction.



"And you said this job would
leave us sitting pretty!"

OUR misguided marauders are understandably embarrassed. They've come up against Cyclone Fence before, but never got the hang of it. Maybe that's why more and more plants are depending on Cyclone Chain Link Fence for all-round protection. How about your plant?

Choose Cyclone, and you have a fence of rugged construction and sound design, tested to stand up under difficult conditions of terrain or climate and stay taut and true through the years.

Cyclone factory-trained engi-

neers are available to help you with your plans . . . to make cost estimates . . . and to help you choose the right type of fence for your particular job. There's no obligation.

And whether you make your plans now or later, you'll want our free, illustrated fact-book "Your Fence." It gives data and specifications on 14 types of U·S·S Cyclone Fence—the most widely used property protection fence in the world. Mail the coupon below.

CYCLONE FENCE DIVISION

(AMERICAN STEEL & WIRE COMPANY)
Waukegan, Ill. • Branches in Principal Cities
United States Steel Export Company, New York

•U·S·S CYCLONE FENCE



Clip this coupon—and send it to:
Cyclone Fence, Waukegan, Ill., DEPT. 496
We'll send you our free, 32-page book on fence.
It's full of facts, specifications, illustrations.
Shows 14 types of fence. Before you choose any
fence for your property, get the facts about Cyclone.

Name.....
Address.....
City..... State.....
Interested in fencing: Industrial; School; Playground;
 Residence. Approximately.....feet.



UNITED STATES STEEL

Delivering Protection to the job



HERE'S PROOF

IT'S WOLMANIZED LUMBER*

This roof deck is going to last longer . . . they're using Wolmanized Lumber, the lumber impregnated with Wolman Salts* preservative—highly resistant to decay and termite attack.

It is recommended for use in structures exposed to:

- (1) Moisture in artificially humidified buildings
- (2) Steam and vapor from industrial processes
- (3) Condensed water vapor in walls, floors and ceilings of refrigerated buildings
- (4) Soil moisture and rain water held in joints, etc., of outdoor structures
- (5) Moisture condensed by concrete or masonry

When you buy Wolmanized Lumber, you get pressure-treated lumber—the only reliable kind.

AMERICAN LUMBER
&
TREATING COMPANY

*Registered trademarks

WOLMANIZING

FLAMEPROOFING

CREDOSATING

1656 McCORMICK BUILDING, CHICAGO 4, ILLINOIS

plus further jumps if and as living costs advance, as measured in future months by the Bureau of Labor Statistics. Initial demands of this sort would leave plenty of leeway for compromise.

If such a demand were made, compromise would admittedly be inevitable. Some U.A.W. officials believe that the union should be satisfied with a straight token advance of 5¢ an hour or so, to satisfy the rank and file and yet stay with C.I.O.'s no-wage-advance policy (BW-Jul.27'46, p87).

• **Big Three Rates**—If a token raise of this comparatively small amount is the final objective of the union, probably 10¢ or 12¢ would be asked at the beginning of negotiations.

A 5¢ advance, it may be noted, would sandwich Chrysler's rates between those of the other members of autodom's big three in Detroit. Figures earlier this year (which have been modestly advanced by scattered adjustments in all cases since) showed the Chrysler average as \$1.33 an hour; General Motors, \$1.365; and Ford, \$1.39.



BYSTANDERS

Manhattan families—hard pressed to find food to buy when a trucking strike closed big grocery chain outlets—were relieved at midweek when a surge of independent settlements started a substantial number of trucks running again. A.F.L. locals accepted \$7.40-a-week raises, with a reduction from 44 to 40 hours' work. But many operators resisted signing on those terms, joined to sue for \$10,000,000, alleging the union did not comply with federal strike laws.

A.F.L. Loses Prize

Oak Ridge atomic energy workers uphold no-union vote in Eastman plant. C. I. O. wins in Union Carbide election.

The "plague o' both your houses" attitude reflected in earlier Oak Ridge (Tenn.) atomic energy plant elections (BW—Aug. 31 '46, p77) still stands. Last week the main prize in a collective bargaining runoff election—the Tennessee Eastman Corp. plant—was lost by A.F.L. to a no-union majority.

• **A.F.L. Protests**—Employees of the largest of three Oak Ridge atomic energy producers rejected A.F.L. 3,120 to 2,503 in a poll supervised by the National Labor Relations Board. Two weeks earlier 2,579 workers had checked the no-union box on their ballots, 1,721 had voted for A.F.L., and 1,531 for C.I.O.

The C.I.O., which trailed A.F.L. in the first poll at Union Carbide & Carbon, nosed out the federation 1,918 to 1,893 in the runoff. A.F.L. filed an immediate protest, asked NLRB to set aside the election result on the grounds that counting of ballots was "unfair and unusual," and that there were "flagrant violations of NLRB procedure." A.F.L. also charged that "collusion between the C.I.O., Army, and NLRB" was used to defeat the federation.

A.F.L. was able to win only at the smallest plant, the Monsanto Chemical Co., where the vote was 331 to 136.

• **Suit for \$200,000**—The no-union victory at Tennessee Eastman was blamed by A.F.L. on "the fight between the unions," which A.F.L. said that the C.I.O. had started.

Even before the runoff votes were counted, the union battle had moved into the Tennessee courts. The A.F.L. Atomic Trades & Labor Council filed suit for \$200,000 against the C.I.O. Atomic Workers Organizing Committee, division of the United Gas, Coke & Chemical Workers, and three C.I.O. officials. A.F.L. charged that on the eve of the runoff vote at the Union Carbide & Carbon plant C.I.O. organizers distributed a letter "containing serious charges of libelous nature" against A.F.L. and officials of some of its unions. The reference was to allegations of racketeering in federation officials.

C.I.O. countered by saying that it, in turn, was planning to sue for damages for allegedly false statements in an A.F.L. weekly paper. Its reference was to charges of Communism.

Both unions announced that organizing efforts will go on at Oak Ridge among workers not covered in initial representation petitions to NLRB.



NOW YOU CAN FLY WITH GREATER SAFETY

• The new Irvin Chair Chute enables you to fly with greater confidence...and decidedly greater safety. For this unique chute...designed specifically for business and pleasure flying...has these unusual features:

- 1 **SIMPLICITY**... You don't need special training to use the Irvin Chair Chute.
- 2 **COMFORT**... You never have to "wear" the Chair Chute or put it on... except in an emergency.
- 3 **CONVENIENCE**... You don't have to carry the Chair Chute around or store it... it is always in your plane... in the back of the chair... ready for instant use.
- 4 **SAFETY**... The Chair Chute can be buckled on in a jiffy in an emergency... and you are ready for any eventuality. Lives have already been saved with this new chute.

Irvin Chair Chutes are available...now...for every type of cabin plane...large or small. Many organizations and individuals are already installing Irvin Chair Chutes in company and personal planes. Write at once for full particulars about this new kind of protection for the planes you own or plan to buy.

FEEL SAFER...BE SAFER with the new Irvin Chair Chute

The seats in this Beechcraft transport are fitted with Irvin Chair Chutes. The chairs have the same beauty and comfort as de luxe airplane seats... plus the "built-in" safety of an Irvin Chute. Chair Chutes cost little... take little time to install.



**IRVING
AIR CHUTE CO., INC.**
1668 JEFFERSON AVENUE, BUFFALO 8, NEW YORK

MICHAELS BRONZE TABLETS



Perpetuate the memory of those who served by engraving their names on a Michaels Bronze Tablet. Many standard designs are available—one is illustrated above. Or Michaels will create special designs to meet your requirements. Tell us what you need and we shall be glad to submit sketches and quote prices. Michaels Bronze Plaques for all uses are described fully in illustrated folder. Write for a copy today.

The Michaels Art Bronze Co., Inc.
COVINGTON, KENTUCKY

Manufacturers since 1870 of many products
in Bronze, Aluminum and other metals

IF YOU

are a subscriber
to this magazine,
the fixed odds that you
hold one of the
following titles are . . .

President or Owner	1 to 3
Vice President	1 to 14
Sales Mgr. (including District and Asst.)	1 to 11
Management-man	96 to 1

A-C Tide Turns

U. E.'s return to work at Pittsburgh plant seems to pull props from under the strikers in six other company plants.

The seven-plant, six-month-old Allis-Chalmers Mfg. Co. strike involving 19,000 production workers in locals of four C.I.O. internationals this week showed definite signs of disintegration.

Most concrete indication was that members of the United Electrical Workers Local 613 at the A-C Pittsburgh plant on Monday ratified by a 4-to-1 vote a contract which their newly selected—and more pliant—bargaining committee had signed with the management, to expire Apr. 15, 1948.

• **Left vs. Right?**—The seven A-C locals had agreed none would go back until all went back. First guess was that the leftist U. E. was gleefully knifing the United Auto Workers, as they have been accused of doing in settling last winter's General Motors strike.

But the theory fails to stand up. Three of the striking A-C locals are U.E., two are of the equally leftist Farm Equipment Workers. The only U.A.W. outfit in the A-C picture is Local 248 at the West Allis plant, with more than

half of all company employees. But Local 248's leadership is noted as the most radical in U.A.W., and rates high with party-line adherents.

• **Company Sees Victory**—Better guess: Pittsburgh Works employees remembered that a couple of A-C strikes ago, with a solidarity agreement in effect, Local 248 quietly settled and worked for two days at West Allis before Pittsburgh even heard of it.

The company regards the settlement as a clear-cut victory. The wage increase is the company's original offer, 13½¢ on top of a 5¢ raise last fall. Maintenance of membership, which was in the old contract, is gone. No form of compulsory union membership takes its place, and there's no provision that a union member must remain in good standing. Instead, the union is taking maintenance of dues, as U.A.W. has it in its contract with General Motors (BW-Mar. 23 '46, p98).

The company granted a check-off of stipulated maximum dues, initiation fee, and annual assessment. After a ten-day escape period, old members will have dues checked off on the union's certification. New members come in by a voluntary written assignment.

• **Reopening Clause**—On or after Apr. 15, 1947, either party may reopen the wages issue once only. If this is not settled peacefully, then the union may hold a strike referendum on company

Left-Wingers Retain Control of Big C.I.O. Union

Reelection of Albert Fitzgerald, James Matles, and Julius Empak as president, director of organization, and secretary, respectively, of C.I.O.'s third largest affiliate, the United Electrical, Radio & Machine Workers, assures to left-wing C.I.O. forces another year of control over U. E. policies.

Biggest U. E. preconvention issue and bitterest argument on the Milwaukee convention floor last week involved the drive of anti-Communist elements led by James Carey, C.I.O. secretary-treasurer and Fitzgerald's predecessor as U. E. president, and Harry Block, U. E. vice-president for the Philadelphia district, to pass a resolution which would commit the union to "American trade union principles." That drive fizzled badly as the proposal was overwhelmingly defeated, and the left-wing clique in control rode rough-shod over all opposition.

The U. E. anti-Communists, a fraction representing less than one-third of the convention's nearly 700 delegates, have pledged, however, to



Fitzgerald Matles

continue their fight to break the left-wing's grip on the organization. Their failure to make much of a dent at the convention should clear the air of a lot of wishful thinking based on the ill-founded belief that right-wing groups in the C.I.O. were strong enough to carry through a substantial purge of leftists.

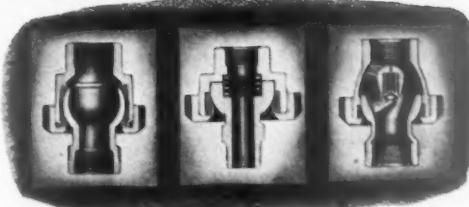


VIBRATION in a guitar string means music

Vibration in a fluid line means trouble

Few things can wreck a fluid line system more quickly than constant vibration and shock. Flexibility to withstand these destructive forces is provided by Barco Joints. Simple in design, they compensate for expansion and contraction, absorb the effects of impacts and vibra-

tion. In over 30 years of service, Barco Flexible Joints have been adapted for use in every field of industry and transportation. For Technical Engineering Information, write to Barco Manufacturing Co., Not Inc., 1830 Winnemac Avenue, Chicago 40, Illinois.



BARCO

FREE ENTERPRISE—THE CORNERSTONE
OF AMERICAN PROSPERITY

FLEXIBLE JOINTS



Not just a swivel joint
... but a combination of
a swivel and ball joint
with rotary motion and
responsive movement
through every angle.

In Canada: The Holden Co., Ltd., Montreal, Canada.

"MOVE IN
EVERY
DIRECTION"

SUPERIOR

is the word for

ADDING MACHINES

These features mean
extreme dependability in the
R. C. Allen 915

- 9 columns adding and listing 9,999,999.99
- Direct subtraction model, printing subtracted items in red
- Full, flexible high speed keyboard
- Visible dials, automatic clear signal
- Total and subtotal mechanism
- Repeat, correction and non-add keys
- 5½ inch carriage
- Two-color ribbon
- Desk-type machine operated by a universal electric motor



Model 915

R.C. Allen Business Machines

ALLEN CALCULATORS, INCORPORATED

678 FRONT AVE., N. W. GRAND RAPIDS 4, MICHIGAN

ADDING MACHINES • CALCULATORS • BOOKKEEPING MACHINES • CASH REGISTERS

MAKE CONFERENCES

*a real business and
leadership aid*



This newly revised
and enlarged edition
now includes an entire
chapter on how to
conduct the labor re-
lations conference

In all sorts of situations—in business, industry, civic, community and club affairs—conference methods can create interest, encourage valuable opinions and ideas, and produce conclusive, practical results. And this simple, direct and readable book, by a man who has led more than 10,000 conferences, fully explains original, tested methods of conducting successful conferences and tells you how to apply them.

Just Published—NEW 2nd EDITION—Alfred Cooper's

HOW TO CONDUCT CONFERENCES

207 pages, 5 x 7½,
\$2.00

TELLS YOU:

- how to plan the conference
- how to compose discussion questions
- what the leader should do
- how to formulate and use follow-up questions
- how to deal with too-talking and obstructive members
- how to lead the discussion to predetermined ends, if needed
- how to evaluate conferences
- how to keep control of the conference
- how to create interest and support for conferences
- etc., etc.

This is a concise manual for all who have to conduct conferences of any type, giving full and explicit instructions on planning the conference, developing thought-provoking discussion questions, and leading the conference through all stages to a useful conclusion. Shows in detail how to apply them in business, industrial training, selling, committee, governmental, labor, educational, and other types of conferences.

McGRAW-HILL BOOK CO.
330 W. 42nd St., N. Y. 18, N. Y.

Send me Cooper's How to Conduct Conferences for 10 days examination on approval. In 10 days I will send \$2.00 plus few cents postage or return book postpaid. (Postage paid on cash orders.)

Name _____

Address _____

City and State _____

Company _____

Position _____

For Canadian price write Embassy Book Co., 12 Richmond St. E., Toronto 1

EXAMINE 10
DAYS FREE
Mail this coupon

BW 9-21-40

premises and at company expense, under supervision of the National Labor Relations Board or the U. S. Conciliation Service.

The union got a couple of face-saving minor concessions extending the field of arbitrable subjects. It also got vacation pay for 1946. At midweek, maintenance men were back and production workers were scheduled for recall just as soon as work should be available.

• In Other Plants—Meanwhile, the 2,100-man Springfield (Ill.) plant union members voted to accept the company's wage offer and its job evaluation program. A meeting is scheduled at midweek to vote on other proposals. Fair assumption: The company will give no more ground than at Pittsburgh.

In three other plants, a back-to-work move threatens success of the strike. At Norwood, Ohio, 730 of 1,400 production workers were on the job last Tuesday; at La Porte, Ind., 356 out of 1,400.

At West Allis, 1,287 out of 11,000 were back. But—so was Harold Christoffel, redoubtable boss of Local 248, released on Tuesday from the Army. Whether Chris' presence would stiffen the backs of Local 248 membership was this week's interesting question.

P. S.

Managers of Kroger Stores in Chicago rejected (80-52) collective bargaining representation by the Retail Clerks International Protective Assn. (A.F.L.), the union which already represented the store clerks. The Kroger election continued an R.C.I.P.A. drive to sign up store managers, particularly in the big chains (BW-Aug. 3 '46, p91).

Striking A.F.L. musicians in New York (BW-Sep. 14 '46, p104) voted to return to work after compromising wage demands by accepting a 20% increase from employers in 58 hotels.

The Radio Directors Guild has received a charter as A.F.L.'s 107th national union. For A.F.L., chartering the R.D.G. filled in the last gap in federation coverage of the broadcasting industry. It meant, for the 1,000-member R.D.G., an opportunity to intensify organizational work among 5,000 program producers and directors employed in 860 radio stations in the U.S. and Canada.

Shortly after the International Typographical Union (A.F.L.) struck against the Trenton (N.J.) Times Jan. 16, its members started a tabloid weekly to carry I.T.U.'s strike message, and other news, to the public, in opposition to the Times whose publication had continued. Recently the strikers' paper, the Trentonian, started coming out as a daily. The labor sponsors said its circulation, climbing over the 10,000 mark, was evidence the city would support a second newspaper.

ng
on
ce
rs
on
2,
on
's
o-
d-
air
no

rk
At
nc-
es-
00.
00
of
re-
ny.
en
was

go
ng
In-
,
ed
on
sign
the

ew
to
ing
in-

re-
na-
the
era-
us-
ber
or-
am
in
and

po-
nst
its
to
her
the
tin-
the
s a
cuc-
ark,
rt a



Painting by Peter Hurd—"Taxco from Silver Artisan's Window"

Mexico Trades Silver for Machinery

SILVER runs like a lustrous thread through Mexican commercial history. Mexico has produced more silver than any other country, and at present accounts for two-fifths of world silver production. Silver jewelry and ornamental fabricated goods enjoy an increasing demand in the U.S. At Taxco are the fabulous Borda mine and world-famous craft industries. In addition to silver, other minerals important in the country's economy include petroleum, gold, copper, lead, zinc.

Mexico bought more than \$100,000,000 of American merchandise in 1945. It is estimated that in the next few years one billion dollars' worth of heavy machinery will need to be imported by rapidly developing Mexican industry.

For exporters and importers, the facilities provided by our Mexico City Branch are essential. The 45 National City overseas Branches are foremost in furnishing complete financial service, including trade analyses, credits, and foreign exchange. Bring your problem to our officers at Head Office or Branches.



William B. Richardson knows trade and banking in Mexico like a book. In charge of our Mexico City Branch since its founding in 1929, he draws on 30 years' experience in National City foreign service to assist the Bank's clients.

ACTIVE OVERSEAS BRANCHES

ARGENTINA	COLOMBIA	MEXICO
Buenos Aires	Bogota	Mexico City
Flores	Barranquilla	Peru
Plaza Once	Medellin	Lima
Rosario		PHILIPPINES
		Manila
		San Juan
		Arecibo
		Bayamon
		Caguas
		Mayaguez
		Ponce
		REP. OF PANAMA
		Panama
		PUNTA RICO
		Santurce
		Arecibo
		Bayamon
		Caguas
		Mayaguez
		Ponce
		REP. OF PANAMA
		Panama
		STL. SETTLEMENTS
		Singapore
		URUGUAY
		Montevideo
		VENEZUELA
		Caracas

Every 3 seconds a customer is served overseas



THE NATIONAL CITY BANK OF NEW YORK

Head Office: 55 Wall St., New York • 66 Branches in Greater New York

Write on your business stationery for the Bank's
Monthly Bulletin on Economic Conditions.

First in World Wide Banking
Member Federal Deposit Insurance Corporation.

GEE! made from GEON

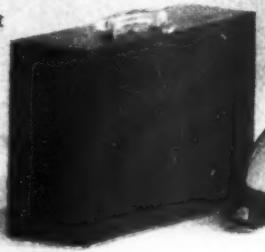
**Some more of the thousands of
applications for GEON raw materials**

THEY'VE made fly swatters and shower curtains—upholstery and floor tiles—wire insulation and acid tank linings—and thousands of other useful, attractive products from GEON polyvinyl raw materials. Here are some more—raincoat, hat, matching handbag, shoes, suitcase — colorful, nice to look at, long-lasting, easy to clean.

GEON, as can be seen, is an extremely versatile material. That's because of its unusual properties which may be compounded into finished products in a wide variety of combinations. Products made from GEON may be made to resist water, chemicals, sunlight, heat, cold, oils and greases, abrasion, mildew, ozone, and most other normally destructive factors. They may be flexible or rigid, clear or opaque, brilliantly or delicately colored.

And don't forget that GEON can be pressure or injection molded, extruded, calendered or cast into sheet or film. In solution or latex forms it can be applied as coatings for fabrics and fibres of all types as well as for paper and cardboard. There are applications for GEON in *every* home, *every* industry.

For more information about GEON, please write Dept. B-10, B. F. Goodrich Chemical Company, Rose Building, Cleveland 15, Ohio. In Canada: Kitchener, Ontario.



Products shown are made of Pantex and Pantasote's Wynsote.



B. F. Goodrich Chemical Company

A DIVISION OF
THE B. F. GOODRICH COMPANY

T
BU
S

THE INTERNATIONAL OUTLOOK

BUSINESS WEEK
SEPT. 21, 1946



Though the Wallace episode has undoubtedly caused a setback, no major long-term change in foreign policy is signaled yet.

The country as a whole is more or less resigned to a Two World setup. And in general, the Byrnes idea of the way to handle Russia is the approved way.

Last week's developments merely confirm President Truman's almost unbelievable indifference or ineptness in the handling of foreign affairs.

In an election year—the first in six years not to be blanketed by wartime restrictions and cautions—political campaigning is likely to bring a series of such shocks unless the President lays down some kind of regulations.

And the fact that the Wallace trial balloon didn't go over gave Truman his cue to be considerably more cautious in the future.

But the uncertainty that has been caused in international relations cannot be smoothed over so easily.

How Washington handles the whole problem is of the utmost importance because of the repercussions on a series of key moves that are about to get under way in the economic field.

Financial experts, led by Hugh Dalton, British Chancellor of the Exchequer, are leaving for the U. S. this week to participate in the first sessions of the World Bank and the International Monetary Fund, in Washington.

Only the closest cooperation between Britain and the U. S. can make the program work successfully.

Scheduled to get under way in London in mid-October are preliminary trade talks among key members of the U.N. who are expected to lay the groundwork for the International Trade Organization.

At stake is the whole system of unfettered world trade demanded by the U. S.

In the way is a rapidly spreading system of controlled, two-country trade deals which threaten to become permanent unless some plan for gradual removal of barriers is quickly drawn up.

Key to the success of the program is Washington's ability to convince London that bulk buying of commodities should gradually be abandoned, and that termination dates should be set on all restrictive bilateral trade pacts.

The constructive debt settlement reached by France and Britain this week is an encouraging sign that these two industrial powers are getting set to talk realistically when the international trade negotiations (page 109) open in London next month.

More encouraging is the announcement of the new Anglo-Argentine economic accord which provides that:

Britain will continue to make heavy purchases of Argentine beef under a new contract at 7½% higher prices.

Argentinians will be appointed to control boards to supervise operation of British-owned Argentine railroads.

Britain will make available immediately foreign exchange to liquidate a portion of the sterling debt held in Argentina.

Negotiations will begin immediately for a new Anglo-Argentine trade

THE INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK
SEPT. 21, 1946

treaty to take the place of the pact that expired a few weeks ago.

Slowness in getting into action may cost the U. S. its foothold in important export markets.

Business Week's correspondent in Switzerland reports this week that Phillips (Holland) threatens to grab the local market for radio tubes because of U. S. delay in getting tubes into the Swiss market.

And in the international scramble to grab the former German chemical market, the Swiss industry (solidly backed by its 20,000 workers) has the jump on many competitors, with exports more than double the 1938 level.

Large contracts have already been completed with France, Spain, Czechoslovakia, and the U.S.S.R.

Feature of special interest to the U. S.: Swiss chemical exports now include much larger-sized processing equipment than before the war, and are comparable with competitive lines normally exported by the U. S.

Britain's aggressive export drive continues to pay dividends.

Continuing its regulation that 50% of the current production in many industries must be exported, London is grabbing big orders on the promise of quick delivery.

India's important textile manufacturers in Hyderabad state recently placed orders for \$4 million of rayon plant equipment in England.

The protracted strike wave in the U. S., along with soaring production costs in some lines, has started a mild industrial move abroad that may have important long-term repercussions.

Two U. S. garment makers have recently bought two modern textile plants in Italy, where expert textile workers are plentiful.

Other U. S. producers have compromised, so far, by subcontracting for limited supplies of garments manufactured abroad to their specifications.

Actually, Italy's progressive textile industry is thriving and is likely to attract more U. S. business. Cotton mills are already working at their prewar level of 60,000 bales of raw cotton a month.

Confident of the long-term trade potential in China if civil war can really be averted, a delegation of ten U. S. industrial leaders has chartered a plane and will soon depart for a quick personal survey of the China market.

And the China-America Council of Commerce & Industry is preparing to distribute among Chinese industrial leaders 3,000 copies of a 360-page directory of 400 U. S. companies directly interested in trade with China.

Approximately 2,000 items are listed in the directory, together with the names of the U. S. companies exporting or importing them.

If you want to trade with Mexico:

Publicaciones Rolland, S. de R. L., announced this week that it will have ready for October release a National Industrial Directory, to sell at 50 pesos (about \$10.30).

Included in its 1,000 pages will be a list of all Mexican industrial companies, their addresses, names of managers, lists of raw materials used and products manufactured, and each company's capitalization.

BUSINESS ABROAD

Trade Pacts Multiply

Despite U. S. opposition, most European countries have bilateral agreements with their neighbors. New Franco-British talks focus attention on pressures behind growth of restrictive policies.

PARIS—Current negotiations here between France and Britain over renewal of their bilateral trade pact, coming hot on the heels of U. S. protests against Sweden's similar pact with Russia, highlight the place of such treaties in world trade today.

The Franco-British agreement, in difficulty for over a year, is only the most notable of a whole series of bilateral trade treaties which England, France, and most of the other European countries have arranged among themselves since 1944. These new treaties are similar in form if not in purpose to the trade pacts which Germany's Dr. Schacht made notorious in prewar Europe and which Britain perfected during the war. They all rest on strict foreign exchange control and governmental licensing of all imports.

• **Pressures**—The British-French trade agreement offers a salient example of some of the difficulties such pacts can run into and of the pressures behind their adoption.

In March, 1945, when newly liberated France was desperately in need of goods and England was beginning to think of postwar exports, the two governments signed a one-year agreement providing credit for \$400 million worth of exports each way.

Since Franco-British trade had been nearly in balance in the prewar year of 1938 at about \$100 million each way, there was hope that France might be able to provide some exports to pay for the British goods that were now badly needed. Chiefly, though, the agreement represented emergency aid for devastated France.

• **Out of Balance**—Actually, with part of the British credit going to pay old debts, France bought far more from England than it sold, and used up the whole amount by July, 1945. Britain then made two further advances.

By the spring of 1946, the account showed a French debt of about \$600-million. At this point the British called a halt, the Bank of France was forced to deliver to the Bank of England \$160-million in gold as partial payment, and French representatives agreed to meet the rest of the debt by instalments which would be paid up over the following three years.

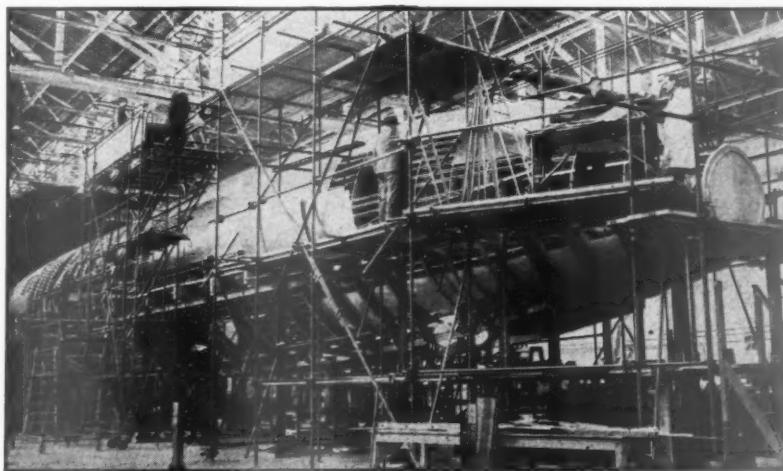
climbing fast, had reached a rate in June of only \$4 million, so that France was still in the position of continuing to pile up a commercial debt to its cross-Channel neighbors.

• **New Talks**—Part of the British financial press complained that France should either cut its prices or further devalue the franc in order to reverse this trend. The French financial press complained in turn that Britain maintains prohibitive duties on French wine, textiles, and other products.

Finally, in early September, Bidault and Bevin got together on the sidelines of the Paris peace conference and agreed that their experts should talk the problem over and try to reach a new understanding. These talks began on Sept. 9 and ended in a funding settlement this week. Trade talks will follow.

• **Popular Method**—The Franco-British trade negotiations, which illustrate the political as well as economic pressures that lead to emergency postwar deals and may run them on the rocks, are typical of dozens of similar arrangements now blanketing Europe.

Britain has developed bilateral trade pacts with most of western Europe and is negotiating now with Russia. In eastern Europe, states under Russian influence have generally attached themselves by such pacts to the Soviet apron strings. They have also reached out for trade with other countries. For example, Poland has a pact with Sweden; Bulgaria and Poland have signed a pact; Bulgaria is negotiating with Czechoslo-



HATCHING A BIG ONE FOR AN AERIAL RACE

Nearing completion at Bristol, the 80-passenger, 110-ton Brabazon I signalizes England's intensified effort for a fat share of world skyways business. Slated for transatlantic routes, the giant liner is being equipped with eight gas turbines coupled in pairs to drive four propellers, will have a range of 5,000 mi., a cruising speed of 350 m.p.h. And in London, the current aircraft show—where representatives from 30 nations are reported viewing the best efforts of British plane makers—is substantial evidence that England is girding for a fight in the equipment field as well as in the air lanes.



FOR NIGHT LIFE

A modern note in a Japanese rice field—a fluorescent light insect trap—is a measure of shortage rather than progress. Farmers previously used gasoline lamps but because oil products are short and hydraulically produced power is available, the Japanese have tapped power lines to set up the low-wattage lights in the fields—which undoubtedly are better illuminated than many farm houses.

vakia, Switzerland, and Romania. Switzerland also has made special agreements with Czechoslovakia, Hungary, and Poland.

• **French Agreements**—The liberated French government has provided many good examples of these bilateral pacts. It has signed direct accords—besides the one with Britain—with Belgium-Luxembourg, Switzerland, Sweden, Holland, Norway, Italy, Denmark, Portugal, Czechoslovakia, Poland, Finland, Romania, Yugoslavia, and Eire, and one with the U.S.S.R. which has not been much used. And France will soon sign an accord with Hungary.

The agreements run from the provision for \$140 million of trade each year with the Belgo-Luxembourg union down to figures of less than a million dollars annually. Most of them have been established this year and represent a resumption of previously blocked trade. Others, such as those with Belgium-Luxembourg, Switzerland, and Czechoslovakia, are renewals of 1945 agreements. They generally run for one year and provide for importation or exportation of specified types of goods, with the amounts also being fixed in some cases.

• **Trade Diversion**—The pacts, deemed essential under present conditions by

the nations concerned, tend to steer trade away from free-market sellers—such as the U. S. They operate through the exchange control and import-export licensing bureaus which abound in every European capital. In France, for example, there is an office for each of these functions, as well as government purchasing missions abroad, a government import-export company, and semi-official "groupements" of various industries for foreign buying.

The bilateral treaties are part of the forest of restrictive measures which the international trade conference meeting in London on Oct. 15 will try its best to begin cutting down. The treaties are also a mushrooming rival to the new International Monetary Fund, for they provide a backdoor method of modifying the value of the world's weaker currencies.

• **Real Causes**—Behind all such restrictions binding world trade today lie the ultimate causes: desperate shortages in nearly every European nation, the equally desperate need to rebuild, and the meager foreign credit resources which have been made available for the accomplishment of this huge task. Behind the London Conference and the new World Bank and Fund lie the western world's hope of freer trade tomorrow.

French economic opinion, while desirous of freer trade, is not optimistic regarding the prospects for a quick slash through the trade barriers. It may be years before French trade is able to achieve the freedom that it had before the war.

Significantly, when the Franco-American loan agreement came before the French Parliament this summer, its defenders had to emphasize strongly the escape clause in its provision for France's adherence to its prewar freedom of trade. This clause declares that France is not bound to reduce its trade barriers until the reconstruction of the country has proceeded so far that its balance of payments is equalized. This will take several years, at the most optimistic estimate.

• **How Long?**—Not only spokesmen for the Right, solicitous for private traders and manufacturers, but also the powerful Communist Party, fearful of what freer trade might do to recently nationalized French industries, raised their voices against any quick lowering of import restrictions.

The U. S., largest supplier to France, as to all of Europe and the great free market of the world, can sell Europe in the immediate future as much as Europe's credit will buy. But foreign trade circles in Paris wonder to what extent present restrictions will continue into the buyer's market of tomorrow, and what that will mean to the United States.

F.A.O. Asks Power

World board proposed to manage production, pricing, and distribution of food products. Washington parley scheduled.

COPENHAGEN—Concluding its work a day ahead of schedule with concrete proposals that merited almost unanimous support of the delegates, the United Nations Food & Agriculture Organization set an enviable example for other international conferences.

Outstanding achievement of the conference was the proposal to establish a world food board to manage production, pricing, and distribution of basic food products.

• **U. S. Meeting Called**—The conference reflected a strong wish on the part of the 33 voting nations to abandon the historic limitation on international agencies that gives them authority only to advise or recommend action in their particular fields. It remains to be seen whether the governments concerned—especially the United States, the United Kingdom, and the British dominions—will go along with conference recommendations.

The F.A.O. conference—itself lacking executive powers—has called for a meeting in Washington, not later than Nov. 1, of a special commission to evolve plans for a world food board empowered to buy and sell selected farm commodities on an international basis.

• **Hope for More Food**—The conference resolution sets as objectives of the commission and the board "developing and organizing the production, distribution, and utilization of the basic foods to provide diets on a health standard for the peoples of all countries" and "stabilizing agricultural prices at levels fair to the producers and consumers alike."

Among conference delegates the world food board is looked upon as a means for expanding world agricultural production and export. Their fear is that the commission, when it meets in Washington, will prepare a plan so weak and limited as to make impossible the accomplishment of these aims.

• **May Require \$2 Billion**—The four main problems arising from the conference proposal—aside from the perpetual question of sovereignty—are these:

(1) Whether the board should be empowered to select the commodities its operations would cover or whether another agency or participating governments should propose commodities from time to time.

(2) The cost of the food board's stock buying and selling. Initially, as much as \$2 billion might be required for five foodstuff commodities, although in time

here it is!

the answer

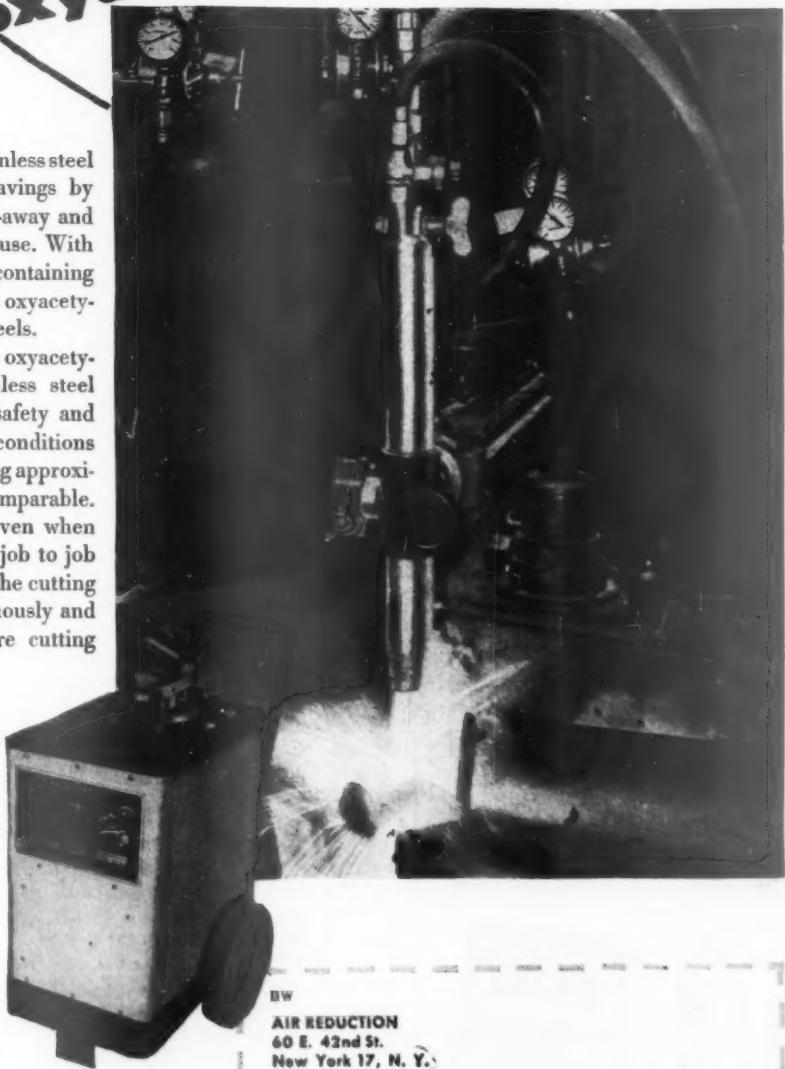
to stainless steel cutting with the oxyacetylene flame

Airco's new Flux-Injection Method of stainless steel cutting points the way to important savings by eliminating the slow, laborious melting-away and mechanical processes now in common use. With the NEW Airco process, stainless steels containing alloying elements as high as 50% can be oxyacetylene flame cut as readily as ordinary steels.

Designed for use with standard Airco oxyacetylene equipment, this new Airco stainless steel cutting technique keynotes simplicity, safety and economy of operation. In fact, operating conditions and instructions for stainless steel cutting approximate mild steel, and "cut-speed" is comparable.

The Flux Feeder Unit is portable, even when fully charged, so rapid movement from job to job is assured. The Unit feeds the flux into the cutting oxygen stream. Thus, the flux is continuously and evenly dispersed throughout the entire cutting operation.

An explanatory article—"Flux-Injection Method Brings Economies of Oxyacetylene Flame Cutting to Stainless Steels"—will be available shortly. Fill in and mail the coupon for your copy. Air Reduction, General Offices, 60 East 42nd Street, New York 17, N. Y. In Texas: Magnolia Airco Gas Products Company, General Offices, Houston 1, Texas. Represented internationally by Airco Export Corporation.



BW

AIR REDUCTION
60 E. 42nd St.
New York 17, N. Y.

(I)—1

Please send me a copy of article: "Flux-Injection Method Brings Economies of Oxyacetylene Flame Cutting to Stainless Steels"

Name _____

Firm _____

Address _____

City _____ Zone _____ State _____



AIR REDUCTION

Offices in All Principal Cities

ORIGINATORS OF MODERN OXYACETYLENE AND
ELECTRIC ARC METHODS FOR METAL FABRICATION

HAVE HAPPIER WORKERS

Provide Soap They Like!

Pynol washes away grease and grime f-a-s-t, yet it is kind to tender skin. Treated with Pine Oil (germicalid) —protects cuts—clean, mild fragrance.

Lanolinated for skin health. Available in 2, 10, 50, 100-lb. containers; 250 lb. barrels. Also hand soaps. Write—



PYNOL HAND DETERGENT
THE PYNOL COMPANY QUINCY, ILLINOIS

HAMMER'S MODERN SUCCESSOR



Drives T-head Tacks up to $\frac{1}{2}$ "
—the only Tacker that does!

TACK-splitting is not only dangerous, slow, laborious—but it is off-the-job. So is plane. Get rid of both, with a HANSEN Tacker that "spits" and drives T-head Tacks with zip-zip speed.

One-hand operation. Self-contained. Ready for steady, rapid tacking, fastening and assembling. Cuts costs. Speeds production, shipping, etc. A variety of models for driving T-head Tacks and 2-pointed Tackpoints up to $\frac{1}{2}$ " length.

ask for FOLDER

A L HANSEN MFG CO 5130 RAVENSWOOD AVENUE CHICAGO 40 ILL

YOUR INDUSTRY in

BILOXI

MISSISSIPPI

Available industrial sites on deep water and rail. Intelligent, willing labor. Cheap power and natural gas. Tax exemption. Full local cooperation. Let us submit facts pertaining to your industry. Write or phone—

BILOXI
CHAMBER OF COMMERCE
BILOXI, MISSISSIPPI

ON THE GULF OF MEXICO



NUMBER

in
Baltimore...
THE
LORD
BALTIMORE
HOTEL
BALTIMORE, MARYLAND

Restful comfort
Delicious food
Downtown location

the operation should be self-financing. (3) Finding support for the standing economics and marketing committee's recommendations that a two-price system in food be established. Under this scheme, commercial sales would be made at one price, but foods distributed to rectify nutritional deficiencies would be sold at a lower price.

(4) Whether the board should be independent or a part of the F.A.O.

• **Russia Invited**—The Soviet Union, one of the world's great agricultural states, has so far failed to join the F.A.O.—although it has been invited to participate in the commission's talks next month. There is considerable dispute over whether a food board could operate successfully without the active participation of the U.S.S.R.

Under the theoretical plans for the food board's operations the board would stockpile basic foodstuffs, holding as much as 50% of the volume of trade in the foods concerned. This stockpile would be utilized as a weapon in the price stabilization program, with the board buying for its stocks when the world price falls below 85% or 90% of an established "normal" price, and selling from stocks when the price exceeds the norm by 10% or 15%.

• **The Other Proposals**—The conference urged direct action in other fields. The F.A.O. mission to Greece recommended establishment of a United Nations mission in Athens, an International Reconstruction & Development Bank loan of \$100 million, improvement in the Greek civil service, reduction of budget appropriations for the Greek army in order to provide funds for agriculture and for purchase of foodstuffs for the Greeks.

The conference also recommended sending a forestry mission to South America, before the end of the year, to determine what immediate supplies of lumber can be obtained from the vast unexploited Latin American forests.

The conference invaded the touchy domain of occupation policy in enemy countries with a strong recommendation that German and Japanese chemical fertilizer (nitrogen) plants be put to work to help meet the critical shortage of fertilizers. The suggestion was directed to the occupying authorities with the proviso that the plants be operated "as long as the world shortage of nitrogen exists." Finally, the conference recommended that American and Canadian nitrogen plants be put to work with the same end in view.

• **More Members**—During the course of the conference, the F.A.O. expanded its membership to 47 by the acceptance to membership of Eire, Switzerland, Italy, Portugal, and Hungary. The conference was attended by voting delegates from 33 member states, observers from eight member and seven non-member countries.

CANADA

Fuel Research

Canada drops large-scale project, plans to profit by the experiments in U. S. Board will draw up Dominion program.

OTTAWA—Canada is calling a temporary halt to all large-scale research on the production of synthetic liquid fuels.

Agreeing that the enormous cost involved is no longer justified now that the wartime emergency is removed, and that the country can profit from the experience of similar research projects in the United States, Canadian officials this week formally postponed plans to erect a hydrogenation pilot plant in the prairie provinces.

• **To Appoint Board**—Instead, Ottawa now plans to appoint a fuel research board representing both the government and private industry and assign to it the responsibility of following current research in the United States and of drawing up a new liquid fuel program for the Dominion.

The shift in government policy is no surprise. Some time ago Resources Minister Glen announced that a plan voted by Parliament a year ago to build a \$750,000 pilot plant for the hydrogenation of oil from coal would be postponed. Since then a committee of experts has been at work on a report, highlights of which were revealed this week in connection with the government's announcement of its new policy on synthetic liquid fuels.

• **Favors Natural Gas**—The committee's recommendations indicate the trend of official thinking:

(1) No world shortage of petroleum in sight, nor any shortage of supply from the Gulf Coast regions or from South America.

(2) There is a possible future shortage from the mid-continent region; and conservation measures may limit exports from the United States.

(3) Eastern and central Canada can securely rely on supplies from the Gulf and South America but the prairie provinces require new sources.

(4) Potential Canadian sources of raw material for liquid fuel are natural gas, natural bitumen from Alberta oil sands, and coal.

(5) Assuming adequate supplies, natural gas would appear to be the most satisfactory raw material for future development.

• **More Information Sought**—In brief, the committee sees no future for a syn-

thetic fuel industry in eastern Canada based on high-cost Nova Scotia coal. The same outlook applies to the Pacific Coast region.

On the other hand, "production of synthetic fuel in the prairie provinces at reasonable cost will be of importance to the prairie economy and consequently to Canadian economy within a reasonably short period unless new oil fields are discovered in the prairie provinces or in the adjoining states to the south."

Recent work in the U. S. applying a fluid catalyst technique is considered so important by Dominion experts that the committee declared more information should be obtained before embarking on a pilot plant project. If such a project is decided upon, the committee proposed it be directed to the utilization of Alberta tar sands and hence its suggestion that a pilot plant would be better located in the west than in Ottawa as originally planned.

Limited Drilling—Meanwhile, the government prepared to turn over to the Abasand Oils, Ltd., its operations on the Alberta sand deposits at McMurray. The company was a pioneer in an attempt to extract petroleum from the deposits, and the government took over and financed its operations during the war in an attempt to meet the emergency fuel shortage. Destruction of the separation plant by fire interrupted the project in 1945.

Limited drilling operations in the McMurray area are being carried on in an effort to locate a source of liquid bitumen. The administration, however, is undertaking no further commitments but proposing to return to the company its land and mining rights on terms which will give the government an interest which will be sufficient to assure a return of its net outlay of \$1,545,000 should the project eventually prove a success.

FREIGHT CARS SPEEDED

OTTAWA—An extra drive to keep railway freight cars rolling is now in progress.

By an order effective Sept. 15, Transport Controller B. S. Liberty required railway companies to impose fines ranging from \$1 to \$10 a day on consignees who take more than the allowed limit of two days to unload cars. The fines are in addition to customary demurrage charges.

The action was taken because of a need for 60,000 freight cars to move the western wheat crop, and an extra 2,000 to move Alberta coal to eastern Canada.

The enlarged Alberta coal movement has been promoted to ease a prospective winter shortage of coal which is due to the American coal strikes earlier in the year.

ADVERTISERS IN THIS ISSUE

Business Week—September 21, 1946

ACE MANUFACTURING CORP.....	96
Agency—Gray & Rogers	
AIR REDUCTION SALES CO.....	111
Agency—J. M. Basford Co.	
ALLEN CALCULATORS, INC.....	104
Agency—Westerly Ad. Assoc.	
ALLIS-CHALMERS MANUFACTURING CO.....	66, 67
Agency—Compton Advertising Inc.	
ALUMINUM COMPANY OF AMERICA.....	12
Agency—Fuller & Smith & Ross Inc.	
AMERICAN GAS ASSOCIATION.....	6
Agency—Ketchum, MacLeod & Grove, Inc.	
AMERICAN LUMBER & TREATING CO.....	100
Agency—Fuller & Smith & Ross Inc.	
AMERICAN OPTICAL CO.....	89
Agency—Sutherland-Abbott	
THE AMERICAN ROLLING MILL CO.....	27
Agency—N. W. Ayer & Son Inc.	
AMERICAN SURETY CO.....	74
Agency—Albert Frank-Guenther Law, Inc.	
AMERICAN TELEPHONE & TELEGRAPH CO.....	3
Agency—N. W. Ayer & Son, Inc.	
AMERICAN TRUCKING ASSOCIATIONS, INC.....	4
Agency—The Blow On	
AMERICAN VISCOSCOPE CORP.....	83
Agency—J. M. Mathes, Inc.	
ARMSTRONG CORK CO.....	49
Agency—Batten, Barton, Durstine & Osborn, Inc.	
THE AUTOCAR CO.....	11
Agency—Gray & Rogers	
BANKERS TRUST CO.....	1
Agency—Cowan & Dengler, Inc.	
BARCO MANUFACTURING CO.....	103
Agency—Campbell-Ewald Co., Inc. Eastern Div.	
BILOXI CHAMBER OF COMMERCE.....	112
Agency—Dixie Advertisers	
BRISACHER, VAN NORDEN & STAFF.....	44
Agency—Van Norden & Staff	
BRYANT CHUCKING GRINDER CO.....	47
Agency—Harr, A. Lourens, Adr.	
CENTURY ELECTRIC CO.....	61
Agency—Oakleigh R. French & Assoc.	
COMBUSTION ENGINEERING CO., INC.....	71
Agency—G. M. Basford Co.	
COMMERCIAL CREDIT CO.....	94
Agency—Van Sant, Dugdale & Co., Inc.	
COMMERCIAL SOLVENTS CORP.....	37
Agency—Fuller & Smith & Ross Inc.	
CONNECTICUT GENERAL LIFE INSURANCE CO.....	32
Agency—Edward W. Robotham Co.	
CONTINENTAL CAN CO., INC.....	3rd Cover
Agency—Batten, Barton, Durstine & Osborn, Inc.	
CYCLONE FENCE DIV., U. S. STEEL CORP.....	99
Agency—Batten, Barton, Durstine & Osborn, Inc.	
DENISON MFG. CO.....	26
Agency—Charles W. Hoyt Co., Inc.	
DISTILLATION PRODUCTS, INC.....	42
Agency—Knox Beverage Advertising, Inc.	
DRESSER INDUSTRIES.....	88
Agency—Fuller & Smith & Ross Inc.	
EASTMAN KODAK CO.....	77
Agency—J. Walter Thompson Co.	
ELLIOTT ADDRESSING MACHINE CO.....	80
Agency—Alley & Richards Co.	
EMPLOYERS MUTUAL LIABILITY INS. CO. OF WISC.....	39
Agency—Hamilton Adr. Agency	
FINNELL SYSTEM, INC.....	54
Agency—Johnson Read & Co.	
FLINTKOTE CO.....	72
Agency—Marshall & Pratt Co.	
GENERAL ELECTRIC CO.....	31
Agency—J. M. Basford Co.	
GENERAL ELECTRIC CO.....	14
Agency—Benton & Bowles, Inc.	
THE GOLDEN CRESCENT FARM PAPERS..	73
Agency—McCann-Erickson, Inc.	
THE B. F. GOODRICH CHEMICAL CO.....	106
Agency—The Griswold-Eshleman Co.	
GOODYEAR TIRE & RUBBER CO., INC.....	4th Cover
Agency—N. W. Ayer & Son, Inc.	
GRAY MANUFACTURING CO.....	57
Agency—Edward Owen & Co.	
GREAT NEW ORLEANS, INC.....	33
Agency—Bauerlein Adr. Agency	
HAMMERMILL PAPER CO.....	81
Agency—Batten, Barton, Durstine & Osborn, Inc.	
JOHN HANCOCK MUTUAL LIFE INS. CO.....	63
Agency—McCann-Erickson, Inc.	
A. L. HANSEN MANUFACTURING CO.....	112
Agency—J. M. Haggard, Adr.	
HARDWARE MUTUAL CASUALTY CO.....	97
Agency—Roche, Williams & Cleary, Inc.	
HARTFORD FIRE INSURANCE CO. & HARTFORD ACCIDENT & INDEMNITY CO.....	25
Agency—Newell-Emmett Co.	
HARTFORD STEAM BOILER INSPECTION & INS. CO.....	2
Agency—N. W. Ayer & Son, Inc.	
HOLIDAY.....	23
Agency—Lewis & Gilman	
R. M. HOLLINGSHEAD CORP.....	52
Agency—The Alkin-Kynett Co.	
E. F. HOUGHTON & CO.....	32
Agency—Roche, Williams & Cleary, Inc.	
HOUSEHOLD MAGAZINE	34
Agency—The Buchen Co.	
HYATT BEARINGS DIVISION GENERAL MOTORS CORP.....	56
Agency—John Campbell-Ewald Co., Inc., Eastern Div.	
HYSTER CO.	69
Agency—Pete, Simon & Smith	
INDIANA DEPT. OF COMMERCE & PUBLIC RELATIONS	50
Agency—Pettinger-Harding, Inc.	
THE INDIANA STEEL PRODUCTS CO.....	93
Agency—Chas. Daniel Frey Adr. Agency	
IRVING AIR CHUTE CO., INC.....	101
Agency—Addison Vars Co.	
JENKINS BROS.....	35
Agency—Horton-Noyes Co.	
THE LINDSAY CORP.....	84
Agency—The Fenaholt Co.	
THE LIQUIDOMETER CORP.....	70
Agency—Lucerne Co., Inc.	
LOEWS, INC.....	114
Agency—Doremus & Co.	
THE LORD BALTIMORE HOTEL.....	112
Agency—The Esopus Adr. Co., Inc.	
LORD MANUFACTURING CO.....	75
Agency—W. S. Hill Co.	
LYON METAL PRODUCTS, INC.....	58, 59
Agency—Evans Associates, Inc.	
P. R. MALLORY & CO.....	78
Agency—The Alkin-Kynett Co.	
MANNING, MAXWELL & MOORE, INC.....	24, 46
Agency—Briggs & Varley, Inc.	
MARCHANT CALCULATING MACHINE CO.....	8
Agency—Brisacher, Van Norden & Staff	
THE MARINE MIDLAND TRUST CO. OF NEW YORK.....	8
Agency—Batten, Barton, Durstine & Osborn, Inc.	
McGRAW-HILL BOOK CO.....	104
MERRILL LYNCH, PIERCE, FENNER & BEANE	62
Agency—Albert Frank-Guenther Law, Inc.	
THE MICHAEL'S ART BRONZE CO., INC.....	102
Agency—Jan-Ore Co.	
MONSANTO CHEMICAL CO.....	28
Agency—Gardner Advertising Co.	
MOORE PUSH-PIN CO.....	114
Agency—Earle A. Buckley Organization	
MORGAN STANLEY & CO.....	64
Agency—J. Walter Thomson Co.	
NATIONAL CASH REGISTER CO.....	85
Agency—McCann-Erickson, Inc.	
NATIONAL CITY BANK OF NEW YORK.....	105
Agency—Batten, Barton, Durstine & Osborn, Inc.	
NEENAH PAPER CO.....	68
Agency—Kirkgasser-Drew	
NEW DEPARTURE DIV. OF GENERAL MOTORS CORP.....	43
Agency—J. M. Hickerson, Inc.	
NORTON CO.....	51
Agency—John W. Odlin Co., Inc.	
THE OHIO CRANKSHAFT CO.....	45
Agency—The Griswold-Eshleman Co.	
OTIS-MCALISTER & CO.....	114
Agency—Drury Co.	
PAIN, WEBER, JACKSON & CURTIS	64
Agency—Doremus & Co.	
PITTSBURGH CORNING CORP.....	95
Agency—Batten, Barton, Durstine & Osborn, Inc.	
PITTSBURGH PLATE GLASS CO.....	30
Agency—Columbia Chemical Div.	
SANTA FE RAILWAY.....	38
Agency—Leon Burnett Co., Inc.	
SCHELBROTH BROTHERS, INC.....	70
Agency—Lyle Hostler, Adr.	
SKINNER ENGINE CO.....	48
Agency—The W. S. Hill Co.	
SOUTHERN COMFORT CORP.....	41
Agency—Jackman & Flatherly	
SQUARE D COMPANY.....	40
Agency—Reincke, Meyer & Flinn, Inc.	
SUNROC REFRIGERATION CO.....	76
Agency—Griswold-Eshleman Co.	
SUPERIOR STEEL CORP.....	29
Agency—Walker & Downing	
TODD CO. INC.....	79
Agency—Howard Swink Adr. Agency	
TOWMOTOR CORP.....	65
Agency—John C. Anderson Co.	
TWIN DISC CLUTCH CO.....	36
Agency—Spencer W. Curtis, Inc.	
UNION CHAIN & MFG. CO.....	115
Agency—Blaco Advertising Agency	
U. S. FIDELITY & GUARANTY CO.....	51
Agency—Van Sant Dugdale & Co., Inc.	
VAN VALKENBURGH, NOOGER & NEVILLE, INC.....	114
Agency—Arthur B. Mogge, Inc.	
WAGNER ELECTRIC CORP.....	55
Agency—Howard Wesson Co.	
WESTINGHOUSE AIR BRAKE CO.....	87
Agency—Ketchum, MacLeod & Grove, Inc.	
WILKENING MFG. CO.....	60
Agency—Gray & Rogers	
WORCESTER CHAMBER OF COMMERCE	98
Agency—Howard Wesson Co.	



IMPORTERS OF
QUALITY COFFEES
for
AMERICAN ROASTERS

•

AMERICAN MERCHANDISE
EXPORTED TO
COFFEE-PRODUCING
COUNTRIES

OTIS, McALLISTER & CO.
World Traders Since 1892
310 Sansome St., San Francisco 4
Canal Building, New Orleans 12
LOS ANGELES CHICAGO NEW YORK

BROLETS

"One illustration is worth 10,000 words." When your new models hit the market, send a service brolet (1) to substitute for your man on the job (2) to reduce the need for skill and special training in installing and using your product. Employ our 26 years of experience in preparing graphic technical manuals for servicing, operation and maintenance. We supply complete text, illustrations, and layouts, ready for duplication—do the whole job well and economically. Give us a ring at Worth 2-2451, or write

Graphological Engineering Division
VAN VALKENBURGH, NOOGER & NEVILLE, INC.
15 Maiden Lane, New York 7, N. Y.

LOEW'S INCORPORATED "THEATRES EVERYWHERE"

September 4, 1946

THE Board of Directors on September 4th, 1946 declared a quarterly dividend of 37½¢ per share on the outstanding Common Stock of the Company, payable on the 30th day of September, 1946 to stockholders of record at the close of business on the 13th day of September, 1946. Checks will be mailed.

CHARLES C. MOSKOWITZ,
Vice President & Treasurer

All over the Map...
MOORE
METHOD MAPTACKS
All sizes, shapes, colors — for
map-marking purposes. At your
stationery and map stores.

MIURE PUSH PIN CO. PHILADELPHIA PA.

THE MARKETS

(FINANCE SECTION—PAGE 62)

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial	147.4	140.9	172.4	153.8
Railroad	49.3	47.6	61.1	55.7
Utility	77.1	72.8	89.4	72.2
Bonds				
Industrial	123.6	123.7	124.8	121.4
Railroad	114.7	115.5	117.6	114.5
Utility	115.4	115.3	115.5	115.7

Data: Standard & Poor's Corp.

It's a Bear Market

Bulls die hard in Wall Street. Although the mortality rate took a jump early this month, the disastrous break in the stock market didn't exterminate the species by any means. As soon as things settled down a bit, bulls began to reappear—just in time to get caught in a new selling wave.

• **Rails Reach New Low**—The behavior of stock prices after the middle of last week gave a certain amount of treacherous encouragement to these survivors. The market hit at least a temporary bottom on Sept. 10, with the Dow-Jones industrial average down to 167.30 and the rails at 48.59. The next day there was a brisk rally. After that, the market began to creep along sideways with comparatively light volume and no particular enthusiasm on either rallies or declines.

Wednesday's session swung an ax on any budding hopes of a quick recovery. The industrials dropped 4.59 points to 169.07. The rails went down 2.24 points to 48.39, a new low. The market

seemed to be preparing for a test of the Sept. 10 lows, and if it went through, there would be no telling where the liquidation would stop.

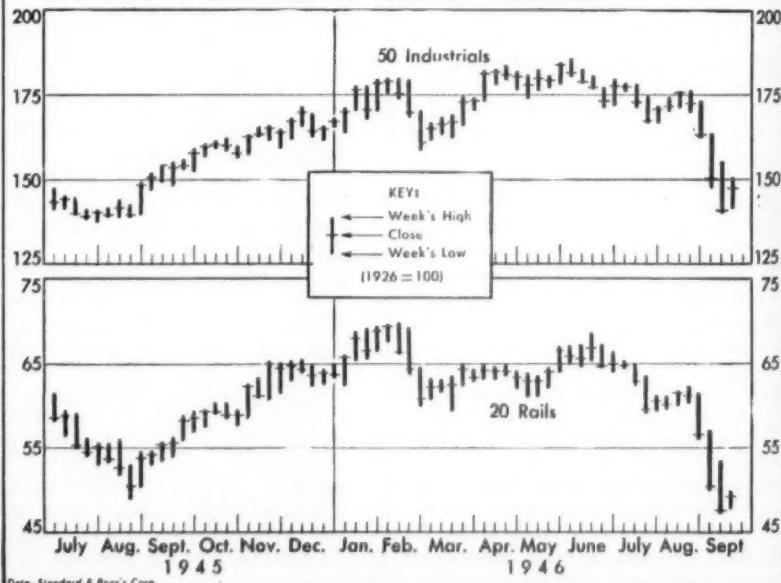
• **Suffering From Shock**—Still, argue the bulls, the market may be suffering from nothing worse than a sort of postoperative shock. The violent break two weeks ago excised a lot of inflated values and cleaned out many of the weakly held blocks of stock that have been hanging over the market. It will take traders a while to get over the jolt, but once they do, the market may be healthier and lustier than before.

This line of talk is plausible, but it finds few takers in Wall Street just now. As far as the chart readers are concerned, we are in a bear market and will stay there until it signals otherwise.

• **Ready to Unload?**—Aside from the charts, there is the stubborn fact that after four years of a rising market, there is a vast amount of stock held by people who have big paper profits and who now want to take their money and go home. They aren't in a hurry to sell at present prices, because they hope the market will recover a bit, but they have had a bad scare. Many of them are ready to unload as soon as prices rise a few points.

With this situation to buck, rallies will have a hard time making headway. Each rise in price will bring a flock of sell orders. Until this class of seller has either unloaded his stock or recovered his confidence, the market will be doing well if it holds its own. And there is always the possibility that something

COMMON STOCKS—A WEEKLY RECORD



test of
it went
telling
D.

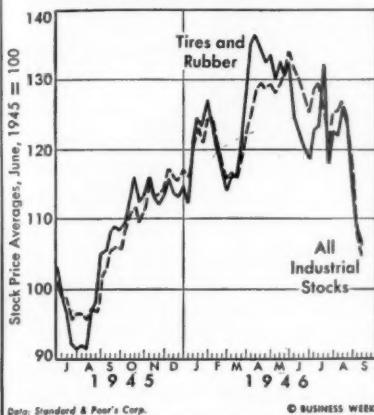
ague the
ing from
stop opera-
o weeks
es and
ly held
changing
traders
at once
healthier

but it
st now.
re con-
et and
erwise.
m the
ct that
, there
people
no now
home.
present
market
had a
ady to
a few

rallies
adway.
ock of
der has
overed
doing
here is
thing

200
175
150
125
100
75
65
55
45

RUBBERS MATCH THE MARKET



will upset the delicate balance and bring a new wave of panic selling.

• **Works Both Ways**—It's worth remembering, however, that in at least one respect the present bear market is different from any other period of price decline that Wall Street has seen. This market is almost entirely on a cash basis, and that is something that works both ways. It thins the market and holds down speculative buying on the declines, but it also prevents the waves of forced selling that used to hit a day or so after a bad session. Just how far the traditional signs and signals can be trusted in the present situation is something that no one knows for sure.

Tire Stocks Suffer

Even though tire and rubber companies should be booming at least until the end of 1947, their securities have been unable to withstand the current decline in stock values any better than the average of all industrial stocks. In fact, tire and rubber stocks, which had outrun the market and reached their high at the end of April, started to decline in May while the all-industrial averages were still going up. However, since the all-industrials turned down in June, the two have gone together fairly closely.

• **Replacements Count**—Superficial analysis which emphasizes the failure of automobile companies to get up to full production as a reason for the slump in rubber stocks will not hold water. While new car demand has a very important effect on tire companies, it is replacement demand from the great bulk of old cars, which continue on the road, that provides the lion's share of the market.

Replacement demand from old cars continues to be very strong with no signs of any immediate abatement. And the failure of new car production to reach 1941 or higher levels has not yet had any effect on the rubber industry,

nor is it likely to. The current imbalanced inventories (page 15), with manufacturers going all out to get whatever they can in the way of parts, means that auto plants are piling tires up for the day when they will have enough cars to go with them.

• **Higher Output Likely**—The Federal Reserve Board's Index of Industrial Production offers further confirmation of this fact. The preliminary index for July production of rubber products was 216 as against 218 in June and 215 in May. The revised figure for July may turn out to be even higher than that for June.

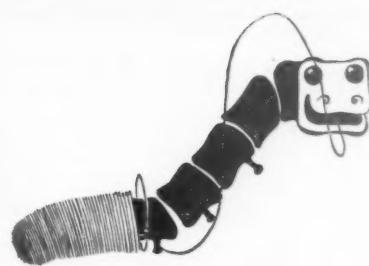
The rubber industry did not suffer an industry-wide strike of the type so prevalent in the rest of the economy during the year after V-J Day. The agreement signed by the companies and the union last February had retroactive provisions extending as far back as the preceding November (BW-Apr. 20 '46, p98). The main terms of the settlement provided for an increase of 18½¢ an hour.

The United Rubber Workers (C.I.O.), which has been spending this week in convention at San Francisco, is expected to come out for immediate reopening of contract negotiations for wage increases. George Bass, president of the union's largest local, has indicated that the union considers such increases necessary to compensate for the "50% increase in living costs" since contracts were signed last February.

• **Price Position**—While the rubber industry, as all other industries, can look forward to an increased wage bill, it may shortly be in a much more favorable position with regard to the price of its basic raw material—crude rubber. Although the price of natural rubber has just increased (page 20), there may be a counter-trend sometime next year.

Production in the Far East is coming back much more rapidly than had been expected. There is a strong possibility that next year the world supply of natural and synthetic will be equal to or will exceed demand. The British are already pressing for a free market in the price of rubber. But there is evidence that they are aware that our present strengthened position in comparison with our prewar situation—based on our synthetic capacity—will result in lowering the price of natural.

• **Fluctuation Worry**—While our synthetics enable us to check the price of the natural, the British believe that we will still want the latter because it lends itself to more efficient fabrication at the present stage of technical development. Equally important to us is the elimination of the prewar violent fluctuations in price. The effects of such fluctuations on American inventory valuations were made sharper by the long journey from plantation to factory.



SILK SLICKER...

A smooth worker is the silk worm. He has one of the slickest specialties in the world. Silk and silk alone is his line, and in his line he's a terrific perfectionist.

SPROCKET CHAINS and sprocket chains alone are our business.

Sprocket chain thinking, sprocket chain designing, sprocket chain making—that's all we do at Union Chain. We're specialists—and even, we like to think, perfectionists. That's why more and more manufacturers, having decided upon economical, efficient, trouble-free sprocket chains to solve their problems in power transmission and materials handling, are bringing those problems to us at Union Chain.

THE UNION CHAIN AND MANUFACTURING COMPANY Sandusky, Ohio

All types of steel chains and sprockets for the transmission of power and the conveying and handling of materials.



Union HB Long Pitch Engineering Chain is made in a complete range of strengths and sizes, with a wide variety of attachments.

UNION CHAINS

THE TREND

STEELMAN FACES A CRISIS—AND CRAWLS

From the standpoint of public integrity (as opposed to personal integrity), Stabilization Director John R. Steelman flopped disgracefully when he changed the stabilization rules to accommodate a wage increase for striking A.F.L. seamen which the National Wage Stabilization Board had found could not be granted under the existing rules.

• **Preoccupation** with this unsavory fact, however, should not divert attention from the further fact that the episode also places the employers and the unions directly involved in anything but a glamorous light. Also, while more sinned against than sinning, the Wage Stabilization Board itself certainly comes off without any added luster. And the public, of course, takes a further beating—to give the episode a rating as another of those well-nigh perfect messes in the field of labor relations which have too consistently characterized the Truman Administration.

The full measure of Steelman's failure is not to be discovered in what he did after the strike of the A.F.L. seamen started. Much of it is to be found in the mismanagement which preceded the strike. For example, there were rumors around the Wage Stabilization Board that, if the board proved tough and refused to approve the wage increase which had been negotiated on the ground that it violated the stabilization rules, the workers really had nothing to worry about; big-hearted John would fix things up. At that juncture it was up to Steelman either to scotch those rumors in no uncertain terms or to tell the Wage Stabilization Board that he intended to change the stabilization rules.

Instead, although on clear notice that it would do so unless he took timely action, he let the case precipitate a national crisis. And then, when it had become a symbol of the integrity of the national price and wage stabilization program, of which he is the highest ranking custodian, he stepped into the full glare of national flood lights and proceeded to crawl under the lash of a strike, dragging the stabilization program into the hole with him.

• **In forcing Steelman to this abject performance,** the striking seamen's unions bypassed the employers whose agreement to a wage increase they sought to enforce, and leveled the full force of their strike attack on the tottering federal stabilization program. They had the alternative of testing first the capacity of the employers to meet the negotiated wage increase without kicking over the stabilization program in the process. The program the unions followed is, alas, such a political push-over that it is easy to understand why they should be tempted to move directly on it. But in so doing there is no doubt that they took a swipe at their own throats and those of their fellow wage earners. For labor stands to rank well toward the top among the losers from a

complete wrecking of the stabilization program, as intelligent unionists themselves have recognized.

If, however, the unions involved in this case do not appear scintillating intellectually, they have nothing on the appearance of the employers. This appearance includes that of trying to give the A.F.L. seamen's unions a wage advantage not accorded to the C.I.O. unions. Indeed, it is widely asserted, though without proof from the formal record, that the appearance reflects the underlying reality. At any rate, the fact is that in the process of negotiating what were presumed to be the details of a standard wage agreement for A.F.L. and C.I.O. seamen's unions, the employers gave the A.F.L. workers what had the appearance, or could readily be made to have the appearance, of being a better break by \$5 or \$10 per month for a few categories of workers.

• **There are plenty of reasons** why an employer might prefer one union over another, or even no union at all. It is hard to imagine a much better way to get into a jam, however, than to have a group of employers dealing with two sets of unions negotiate a wage agreement with one of them which the other can plausibly charge discriminates against it. And if one of the groups is affiliated with the C.I.O. which often operates as a sort of wing, left-wing, of the National Democratic Committee, and the agreement involves the national Administration, it would take a positive genius to think up a better way of getting into trouble.

The Wage Stabilization Board might have obviated some of this trouble by being more explicit. When, early in June, it approved the basic adjustment in a group of C.I.O. cases it could and should have said more clearly than it did, not only that this represented the maximum increase possible, but why. That might have made a little less inviting the effort to liberalize the basic agreement through the adjustment for the A.F.L. unions which started all the trouble. Even so, while fuzzy on the edges of its wage stabilization policy for maritime workers, the Wage Stabilization Board is entitled to credit for trying to do an honest job courageously.

• **By those who insist** on finding a silver lining in every cloud, even where there isn't any, it will be pointed out that this maritime wage stabilization debacle need not be fatal to the stabilization program as a whole because maritime wages and rates present a unique situation. However, unless it develops that there was also something unique about Steelman's performance as a one-man wrecking crew of the stabilization program of which he is called director, the whole business will quickly attain the status of a fraud, and not a pious one at that. So long as Truman, Steelman, et al. remain political captives of organized labor, and more specifically of the C.I.O.-P.A.C., we cannot frankly be very hopeful that this case will prove unique.

intel-

not
on
nce
ons.
rom
der-
s of
of a
en's
had
the
per

ght
all.
o a
eal-
ent
rge
fili-
of
tee,
on,
way

ited
rly
of
rly
am
tle
ent
ich
he
rk-
dit

very
ut
not
use
on.
ng
an
he
ain
So
ves
D.
use

946

6
*

A

*
er
An
se

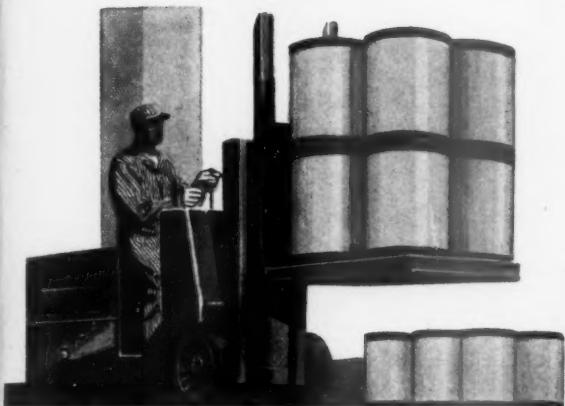
ye
ag
An
on

kn
pr
sec
tic
yo
in

Pro
CO
Com
Cap
The



*Caps that hold the zip in drinks . . . Paper cups for eats



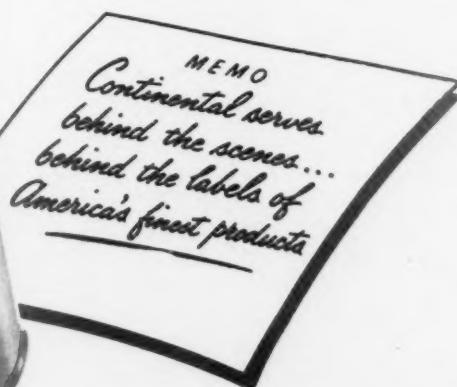
Fibre drums with metal ends . . . And cans for tasty treats

ALL ARE MADE BY CONTINENTAL CAN COMPANY

* 18 BILLION BOTTLES of carbonated beverages are sold in the U. S. every year. An amazing number of these bottles are sealed with caps made by Continental.

Continental caps are tight-gripping, yet easy to remove. They protect against carbonation and flavor loss. And Continental's famous lithography on caps gives extra eye-appeal.

Bottlers are not the only ones who know the high quality of Continental products. Everywhere you go, you'll see cans, fibre drums, paper cups, plastics . . . all made by Continental. Keep your eye on Continental—for packaging and plastic products.



Products and Divisions of Continental Can Co., 100 East 42nd Street, New York 17, N. Y.
CONTINENTAL PRODUCTS: Metal Containers • Fibre Drums • Paper Containers • Paper Cups • Plastic Products • Steel Containers • Crown Caps and Cork Products • Machinery and Equipment. OPERATING DIVISIONS: The Container Company, Van Wert, Ohio • Boothby Fibre Can Division,

Roxbury, Massachusetts • Mono Containers, Newark, New Jersey — Plastics Division, Cambridge, Ohio • Bond Crown & Cork Company, Wilmington, Delaware • Cameron Can Machinery Company, Chicago, Illinois. FOREIGN SUBSIDIARIES: Continental Can Company of Canada, Limited, Sun Life Building, Montreal, Canada • Continental Can Corporation, Havana, Cuba



"Llantas," "Tyres," "Pneus," "Gomas," "膠輪"

ANOTHER REASON FOR GOODYEAR LEADERSHIP

QUITE a babel of tongues here, but these picturesque gentlemen are all talking about the same thing. Yes, rubber tires. They're "llantas" in Peru, "tyres" in England and India, "pneus" in France, "gomas" in Cuba, and in China they're "膠輪".

Since as early as 1901, when Goodyear Tires were first distributed in England, the pneumatic tire has exerted an ever-increasing influence on the lives of people everywhere. For Goodyear operations, through the years, have grown until they encompass the globe.

Today, Goodyear products are manufactured in Argentina, Australia, Brazil, Canada, Colombia, Cuba, Eire, England, India, Mexico, Peru, South Africa, Sweden and Venezuela. Goodyear branches, distributors, dealers are found the world over.

Goodyear's famous All-Weather Tread has written its signature in the sands and snows of the six continents. And people apparently approve...for it's true today—as it has been for 31 straight years—"More people the world over ride on Goodyear Tires than on any other kind!"

A pioneer in rubber and the world's biggest builder of tires, Goodyear is also an experienced worker in metals, fabrics, chemistry, plastics and other vital fields . . . striving at all times to develop new and better products for you.



THE GREATEST NAME IN RUBBER

world's
ear is
metals,
other
times to
or you.

BBER

XUM